ENGINEERING EVALUATION/ COST ANALYSIS for the TREATMENT OF IMPACTED SOILS AT THE GRANVILLE SOLVENTS SITE GRANVILLE, OHIO

Submitted to

The United States Environmental Protection Agency
Emergency Response Branch
Region V
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Developed for the

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Contents

TABLE OF CONTENTS
ENGINEERING EVALUATION/COST ANALYSIS

Page

1.0 EXECUTIVE SUMMARY 1

2.0 SITE CHARACTERIZATION 5
2.1 SITE DESCRIPTION AND BACKGROUND 5
2.1.1 Site History 5
2.1.2 Requirements of the AOC 9
2.1.3 Current Conditions 12
2.1.3.1 Geologic Setting 12
2.1.3.2 Hydrogeologic Setting 13
2.1.3.3 Nature and Extent of Contamination - Summary 15
2.2 PREVIOUS REMOVAL ACTIONS 15
2.2.1 Ohio EPA Emergency Removal Action 15
2.2.2 Groundwater Barrier, Extraction and Treatment System 17
2.2.2.1 Purpose 17
2.2.2.2 Description 18
2.2.2.3 Alternatives Considered 18
2.2.2.4 Effectiveness of the Removal Action 19
2.2.3 Groundwater Monitoring 19
2.2.3.1 Purpose 19
2.2.3.2 The Groundwater Monitoring Network 19
2.2.3.3 Nature and Extent of Contaminants Detected 21
2.2.4 Reinstatement of the Capacity of Municipal Well PW-1 21
2.2.4.1 Description 21
2.2.4.2 Alternatives Considered 21
2.3 SOURCE, NATURE, AND EXTENT OF CONTAMINATION 25
2.3.1 Nature and Extent of Groundwater Contamination 25
2.3.1.1 Groundwater Data from 1990 to 1993 25
2.3.1.2 Groundwater Data from April and May 1994 25
2.3.1.3 Current Groundwater Data: 1996 32
2.3.2 Nature and Extent of Soil Contamination 39
2.3.2.1 Soil Data from 1990 to 1993 39
2.3.2.2 Soil Data from April and May 1994 39
2.3.2.3 Soil Data from April 1996 to Present 41
2.3.2.4 Soil Air Permeability Evaluations 68
2.3.3 Effect of the Groundwater Barrier, Extraction and Treatment System . . . 69
2.4 ANALYTICAL DATA 72
2.4.1 Groundwater Data 72
2.4.2 Soil Data 72
2.5 STREAMLINED RISK EVALUATION 72
2.5.1 Introduction to the Risk Evaluation 72
2.5.2 Conceptual Site Model 74
2.5.2.1 Land Use Scenarios and Potential Populations of Concern . . . 74
2.5.2.2 Exposure Assumptions for the Potential Receptors 77
2.5.3 Chemicals of Potential Concern for the Soil Removal Action 77
2.5.4 Chemical Exposure Modeling 78
2.5.5 Risk Characterization 79

TABLE OF CONTENTS (Continued)

Page

2.5.5.1 Evaluation of Non-Carcinogenic Hazards 81
2.5.5.2 Evaluation of Carcinogenic Risks 83
2.5.5.3 Results 86
2.5.6 Results of the Fate and Transport Modeling 87
2.5.7 Summary of Risk Evaluation and Removal Action Goals for the Treatment of Impacted Soils 101

3.0 IDENTIFICATION OF REMOVAL ACTION OBJECTIVES 103
3.1 STATUTORY LIMITS 103
3.2 DETERMINATION OF REMOVAL ACTION SCOPE 103
3.3 DETERMINATION OF REMOVAL ACTION GOALS 104
3.4 DETERMINATION OF REMOVAL ACTION OBJECTIVES 104
3.5 DETERMINATION OF REMOVAL ACTION SCHEDULE 105

4.0 IDENTIFICATION AND ANALYSIS OF REMOVAL ACTION ALTERNATIVES 106
4.1 IDENTIFICATION OF ALTERNATIVES 106
4.1.1 Alternative 1 - No Action 106
4.1.2 Alternative 2 - Soil Removal by Excavation and Disposal 106
4.1.3 Alternative 3 - *In-Situ* Mixing/Hot Gas Vaporization of Soil Areas 107
4.1.4 Alternative 4 - Treatment of Soils by Pneumatic Fracturing and Soil Vapor Extraction 107
4.1.5 Alternative 5 - Treatment of Soils Via Thermally Enhanced Soil Vapor Extraction (Shell Process) 108
4.2 ANALYSIS OF REMOVAL ACTION ALTERNATIVES 108
4.2.1 Comparative Analysis 108
4.2.1.1 Alternative 1 - No Action 109
4.2.1.2 Alternative 2 - Soil Removal by Excavation and Disposal 111
4.2.1.3 Alternative 3 - *In-Situ* Mixing/Hot Gas Vaporization of Soil Areas 114
4.2.1.4 Alternative 4 - Treatment of Soils by Pneumatic Fracturing and Soil Vapor Extraction 117
4.2.1.5 Alternative 5 - Treatment of Soils Via Thermally-Enhanced Soil Vapor Extraction 119
4.2.2 Cost Analysis 122

5.0 RECOMMENDED REMOVAL ACTION ALTERNATIVE 129

6.0 REFERENCES 131

LIST OF TABLES

Table 1-1 Chemicals Detected at the Granville Solvents Site 2
Table 2-1 Chemicals Detected in the Soils at the Granville Solvents Site 11

TABLE OF CONTENTS (Continued)

Page

Table 2-2 Groundwater Sampling Results Summary - 1990-1993 26
Table 2-3 Groundwater Sampling Results Summary - April-May 1994 27
Table 2-4 Groundwater Sampling Results Summary - 1996 34
Table 2-5 Groundwater Quality Data 38
Table 2-6 Soil Sampling Results Summary - 1990-1993 40
Table 2-7 Soil Sampling Results Summary - April-May 1994 42
Table 2-8 Soil Sampling Results Summary - 1996 43
Table 2-9 Chemicals of Concern for the Granville Solvents Site 78
Table 2-10 Summary of Exposure Concentrations 80
Table 2-11 Toxicity Values for Chemicals of Potential Concern at GSS 82
Table 2-12 Summary of Risk and Hazard Calculations - Hypothetical Future Adult Excavation Worker 84
Table 4-1 Remedial Alternative Evaluation Summary: 1. No Action Soils 123
Table 4-2 Remedial Alternative Evaluation Summary: 2. Remove Soil with Total VOCs >5,000 µg/kg by Excavation and Off-Site Disposal 124
Table 4-3 Remedial Alternative Evaluation Summary: 3. Treat Soils with Total VOCs >5,000 µg/kg by *In-Situ* Mixing/Hot Gas Vaporization 125
Table 4-4 Remedial Alternative Evaluation Summary: 4. Treat Soils with Total VOCs >5,000 µg/kg by Pneumatic Fracturing and Soil Vapor Extraction 126
Table 4-5 Remedial Alternative Evaluation Summary: 5. Treat Soils with Total VOCs >5,000 µg/kg by *In-Situ* Thermal Treatment (Shell Process) 127
Table 4-6 Comparison of Costs for Alternatives 1-5 128
Table 5-1 Recommended Alternative 129

LIST OF FIGURES

Figure 1 Site Location Map 6
Figure 2 Site Features Map 7
Figure 3 Monitoring Well Location Map 20
Figure 4 VOCs Detected in Groundwater 1996 22
Figure 5 Isoconcentration Contour Map of Total VOCs in Groundwater 1996 23
Figure 6 Location of PW-4 24
Figure 7 Areal Distribution of VOCs at Depths of 2-4 Feet 59
Figure 8 Areal Distribution of VOCs at Depths of 6-8 Feet 60
Figure 9 Areal Distribution of VOCs at Depths of 12-14 Feet 61
Figure 10 Areal Distribution of VOCs at Depths of 18-20 Feet 62
Figure 11 Areal Distribution of VOCs at Depths of 26-28 and 28-30 Feet 63
Figure 12 Semivolatile Organic Compounds Detections 64
Figure 13 Metals Concentrations Detected 65
Figure 14 Background Samples 66
Figure 15 Potentiometric Map - January 30, 1995 70
Figure 16 Potentiometric Map - January 18, 1996 71
Figure 17 Human Health Conceptual Model 75
Figure 18 Preliminary SVE and Groundwater Extraction Well Locations 130

TABLE OF CONTENTS (Continued)

Page

LIST OF APPENDICES

APPENDIX A SOIL AND GROUNDWATER DATA

A-1 GROUNDWATER DATA
A.1.1 April-May 1994 Data
A.1.2 1996 Data

A-2 SOIL DATA
A.2.1 April-May 1994 Data
A.2.2 1996 Data

APPENDIX B DETAILED RISK/HAZARD CALCULATIONS

Section One

1.0 EXECUTIVE SUMMARY

The Administrative Order on Consent (AOC) between the U.S. EPA and a group of potentially responsible parties at the Granville Solvents Site (GSS PRP Group) orders the completion of certain Removal Actions at the Granville Solvents Site. These Removal Actions include the installation of a pump and treat system to halt migration of groundwater contamination toward the Village of Granville municipal wellfield, reinstatement of the capacity of the Village of Granville's production well, PW-1, and treatment of soils to required levels so that no groundwater beneath the soils will become contaminated above the groundwater no further action levels. To date the GSS PRP Group has installed and is operating a groundwater pump and treat system and has provided a new production well for the Village of Granville.

This Engineering Evaluation/Cost Analysis (EE/CA) addresses the soil treatment requirements of the AOC. Investigations have been made to further characterize soils and groundwater. These data have been evaluated, and the extent and distribution of groundwater contaminants have been defined. The nature and extent of impacted soils have also been defined. The results of the investigations indicate that the volatile organic compunds (VOCs) and semivolatile organic compunds (SVOCs) listed in Table 1-1 have been detected at the site.

The compounds in the soil are primarily located in the vicinity of the warehouse building. The distribution of contaminants in the soil takes the shape of an inverted cone, with the smallest area of impact at or near the surface and the larger area of impact at or near the water table.

Based on data collected, a streamlined risk evaluation was conducted. This evaluation provides an estimate of how, and to what extent, people might be exposed to chemicals of concern and assesses the potential health effects if no action is taken. Based on future use, the most likely potential exposure pathway is to utility excavation workers. The evaluation demonstrates that no unacceptable risk exists for this exposure pathway.

A groundwater flow and contaminant fate and transport numerical computer model was developed to predict the impact of contaminants in the soils on the groundwater beneath the site and to aid in the evaluation of options for the remediation of the impacted soils. A number of site conditions were simulated using the model including: no action; maintenance pumping; soil remediation to 1,000 μg/Kg;

TABLE 1-1
VOLATILE AND SEMIVOLATILE ORGANIC COMPOUNDS DETECTED AT THE GRANVILLE SOLVENTS SITE

1,1,1-Trichloroethane	Methylene Chloride
Tetrachloroethene	4-Methyl-2-Pentanone
Trichloroethene	Xylenes(Total)
cis-1,2-Dichloroethene	1,2-Dichloroethene(Total)
1,1-Dichloroethane	Carbon Disulfide
1,1-Dichloroethene	1,1,2-Trichloroethane
Acetone	Chlorobenzene
trans-1,2-Dichloroethene	Benzene
Vinyl Chloride	Bis(2-ethylhexyl)phthalate
Chloroform	Naphthalene
Toluene	2-Methylnaphthalene
Ethylbenzene	Acenaphthylene
2-Butanone	Dibenzofuran
Fluoranthene	Fluorene
Phenanthrene	Di-n-Butyl Phthalate
Benzo(a)anthracene	Anthracene
Benzo(g,h,i)perylene	Carbazole
Benzo(a)pyrene	Benzo(b)fluoranthene
Chrysene	Dibenz(a,h)anthracene
Benzo(k)fluoranthene	Diethyl Phthalate
Indeno(1,2,3-cd)pyrene	Pyrene
Alpha BHC	Styrene
Beta BHC	Trichlorofluorethane
Bromodichloromethane	1,2,4-Trichlorobenzene
Chloroethane	2-Hexanone
Dibromochloromethane	cis-1,3-Dichloropropene

and soil remediation to 5,000 μg/Kg. If all activities currently underway were terminated and no further action taken, the model suggests that groundwater would remain impacted and chemicals would migrate into the wellfield at concentrations above action levels. If, on the other hand, the existing plume containment system continues to operate, chemicals present in the soils would leach into groundwater and be contained and removed by the existing pumping system. Interpretation of the model results indicated that it would likely be required to operate this groundwater pumping system well into the future (more than 20 years) to meet the requirements of the AOC.

Model simulations were developed to evaluate the effect of the removal of VOCs from the soils. Separate evaluations were made for removal of total VOCs that exceeded 1,000 μg/Kg, 5,000 μg/Kg, and 10,000 μg/Kg. The simulations resulted in the following conclusions. If total VOCs in the soil exceeding concentrations of 1,000 μg/Kg were removed over a relatively short period of time, leaching of the remaining total VOCs would not cause the groundwater to exceed no further action levels. Likewise, if total VOCs in the soil exceeding concentrations of 5,000 μg/Kg were removed, leaching of the remaining total VOCs would not cause the groundwater to exceed no further action levels.

In contrast, if total VOCs in the soil exceeding concentrations of 10,000 μg/Kg were removed, leaching of the remaining total VOCs would cause the groundwater to exceed no further action levels. This would require that the pumping system be maintained to contain these total VOCs. Thus, to meet the requirements of the AOC and to minimize the time that will be required to operate the existing pumping system, it is necessary to remove soil contamination with total VOCs concentrations greater than 5,000 μg/kg. In doing so, the requirements of the Administrative Order will have been met in an efficient and cost effective manner. The Removal Action Goal for total VOCs in the site soils is therefore determined to be 5,000 μg/kg.

Five alternatives were identified as potential Removal Actions that would reduce the VOC concentrations in the soil to below 5,000 μg/kg. The Removal Action Alternatives are: No Action (for comparative purposes), Soil Excavation and Disposal, *In-Situ* Mixing/Hot Gas Vaporization, Pneumatic Fracturing and Soil Vapor Extraction, and Thermally-Enhanced Soil Vapor Extraction. The No Action alternative has been evaluated as required to maintain consistency with the Comprehensive Environmental Resource Conservation and Liability Act (CERCLA) and the Natural Oil and Hazardous Materials Contingency Plan (NCP). Each alternative was evaluated based on the NCP criteria and the Superfund Accelerated Cleanup Model (SACM) guidance. For the chemicals of concern present at the GSS, the remedies are

not mutually exclusive. Rather, the properties of the chemicals of concern are similar, which allows all of the chemicals of concern to be addressed using one technology. The results of this evaluation indicate that the best alternative is pneumatic fracturing of the soils and soil vapor extraction. This alternative would involve two primary actions:

1. Enhanced pump and treat with the installation of a third extraction well.
2. Installation and operation of a soil vapor extraction (SVE) system using pneumatic fracturing to enhance the soil air permeability.

This EE/CA is divided into six sections. Section 1 is the Executive Summary. Section 2 describes the site characterization of the GSS, including a streamlined risk evaluation. The Removal Action objectives are described in Section 3. Section 4 identifies and analyzes the Removal Action alternatives. The recommended Removal Action is described in Section 5. A list of references is provided in Section 6.

2

Section Two

2.0 SITE CHARACTERIZATION

2.1 SITE DESCRIPTION AND BACKGROUND

The Site is the location of an inactive waste solvent blending and recycling operation at 300 Palmer Lane in Granville, Licking County, Ohio (Figure 1). The Site is near the southern corporate limit of the Village of Granville, but within the Village boundaries, located approximately one-third mile southeast of downtown Granville. The Site is on a 1.5-acre triangular-shaped parcel located adjacent to a residential area. There is some commercial and light-industrial business nearby. The Site is bordered on the northwest by Palmer Lane which slopes downward southwest toward the municipal well field. A former railroad track, now a bike and walking path, is the southern border of the site with the Cherry Street overpass bordering the Site on the east. From the walking and bike path, Raccoon Creek is approximately 100 feet south. The Village of Granville's municipal well PW-1 is 700 feet west of the site as shown in Figure 2. The GSS is zoned for commercial use.

2.1.1 Site History

Granville Solvents, Inc., (GSI) reportedly began operations in 1953 as a petroleum bulk storage, distribution, and recycling center in Granville, Ohio (Licking County, Granville Township). The company moved to the present Palmer Lane location in 1958, continuing its petroleum product-related activities. GSI handled aviation fuels, antifreeze and, later, petroleum solvents, purchasing these chemicals in bulk for repackaging and distribution. In 1980 or earlier, GSI ceased handling petroleum-related products and began operating solely as a solvents reclamation and recycling business. Beginning in 1980, GSI began operating under an Interim RCRA Part A Permit assigned by the Ohio EPA. From 1980-86 diverse waste solvents were processed. The handling facilities included fifteen aboveground and underground steel storage tanks. Waste solvents were reportedly brought to the facility in bulk and drum quantities, and were stored. Solid residues were separated for disposal and solvents were distilled and collected for reuse. During this period, the Ohio EPA conducted and documented routine inspections of the operations at the facility.

In 1986, GSI was ordered by the Licking County Court of Common Pleas to cease operation. In 1990 and 1991, the Ohio EPA removed the storage tanks and drums and installed 15 groundwater monitoring wells. Between 1991 and 1994, Ohio EPA periodically sampled groundwater from several of the

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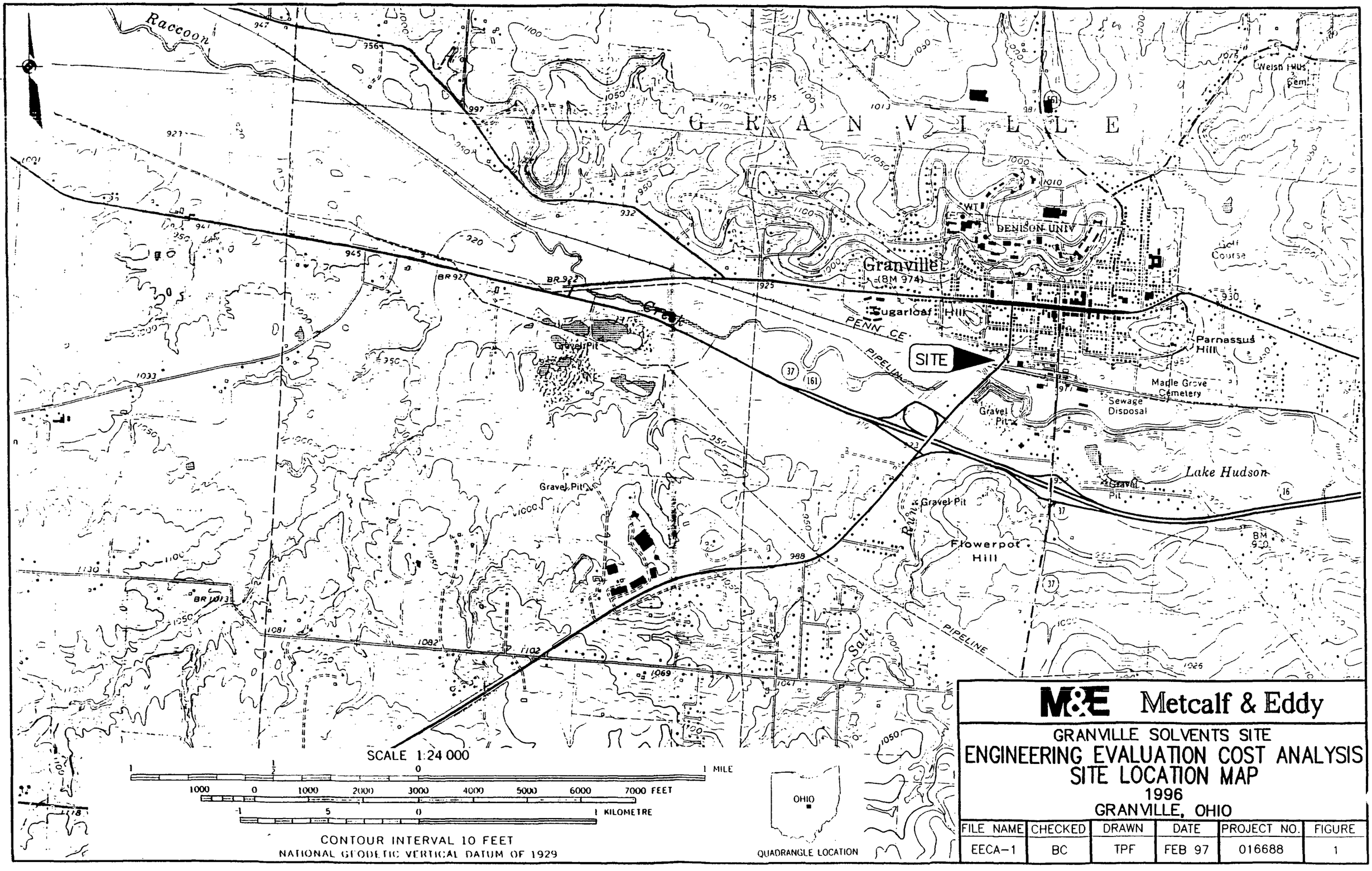

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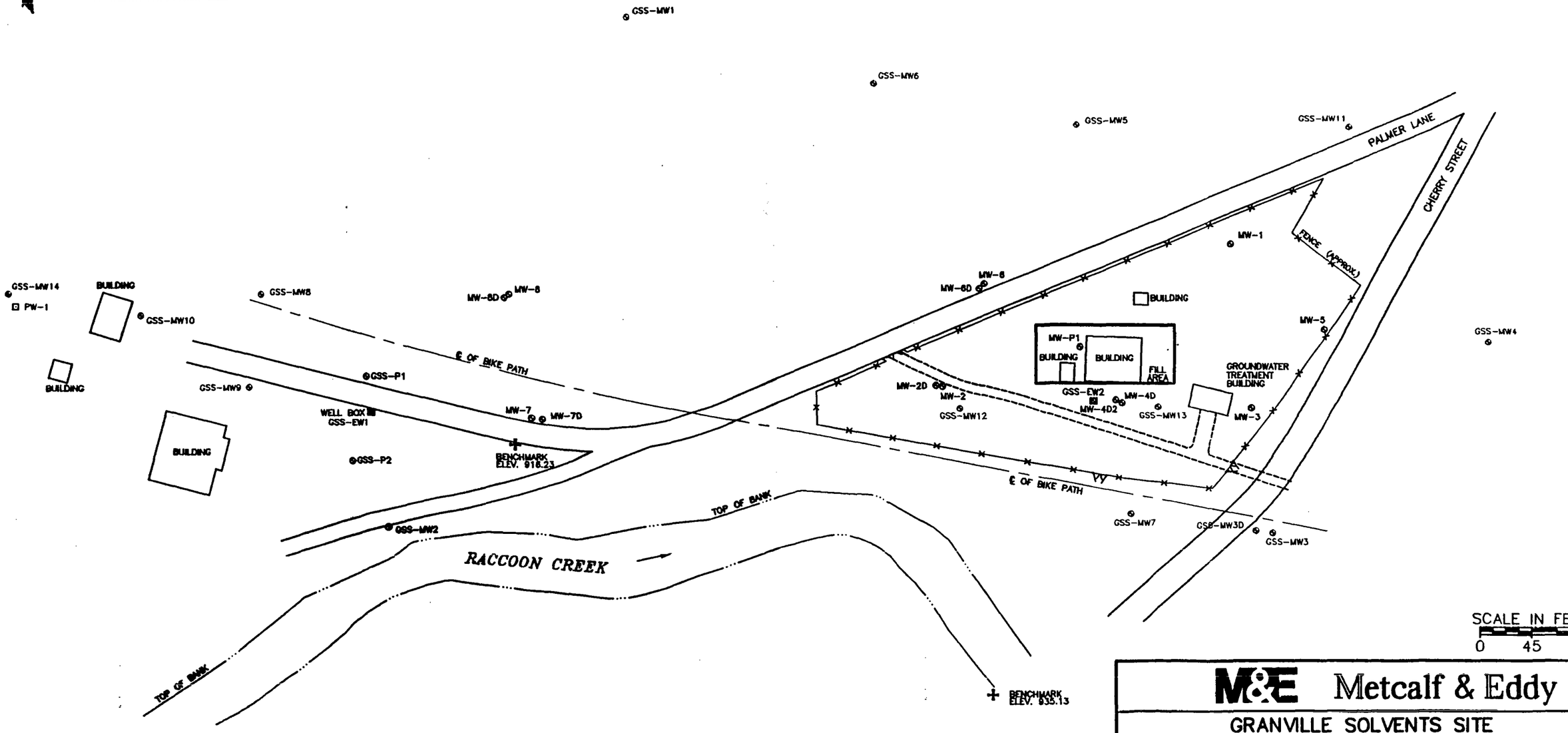
GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS
SITE LOCATION MAP
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-1	BC	TPF	FEB 97	016688	1

EXPLANATION

- ● MONITOR WELLS
- ■ EXTRACTION WELLS
- ⊡ VILLAGE PRODUCTION WELL



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GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SITE FEATURES MAP
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-3	MR	TPF	FEB 97	016688	2

monitoring wells. Groundwater contamination (VOCs) was detected in on-site and nearby off-site monitoring wells as early as 1991. In late 1993, VOCs were detected, for the first time, in the monitoring well (MW-8) less than 400 feet east of the Village of Granville water supply well PW-1.

In early January 1994, the Village of Granville, following a request from the Ohio EPA, removed from service the production well (PW-1) closest to the Granville Solvents Site to reduce the likelihood of hydraulic capture of impacted groundwater by the two remaining supply wells.

Because of the findings of the Ohio EPA, the U.S. EPA identified Potentially Responsible Parties (PRPs) from copies of Hazardous Waste Manifests provided to them by GSI who had shipped waste material to the GSI facility for recycling, consistent with GSI's Ohio EPA Part A Permit. A group of the PRPs voluntarily formed the Granville Solvents Site PRP Group (PRP Group) in February 1994, and commenced negotiation with U.S. EPA on the terms of an Administrative Order requiring the PRP Group to perform a Removal Action. The PRP Group contracted Metcalf & Eddy of Ohio, Inc. (M&E) in March 1994 to begin site work to collect data necessary to design and implement the Removal Action. M&E conducted field investigations beginning in April 1994 to further define the extent of contaminants in the soil and groundwater at the Granville Solvents Site and to determine the Removal Actions, if any, which would be appropriate. Certain members of the PRP Group and the U.S. EPA entered into the AOC in September 1994.

In December 1994, a groundwater pumping and treatment system was installed and operated to halt further migration of contaminants from the Site. This system consists of two extraction wells and a treatment system designed to remove volatile organic compounds from the water. Following commencement of this system, a long-term pumping test and treatability study were conducted to evaluate the general effectiveness of the system to meet the required objectives.

To aid in documenting the performance of the system, a Groundwater Monitoring Program Plan (June 1995) was developed and implemented. Additional groundwater monitoring wells were installed in December 1995, and January 1996, and subsequently sampled. The results of this sampling were reported to the U.S. EPA in the *Monitoring Well Installation Report* in September 1996 and appended in December 1996.

In December 1995, a *Design Technical Memorandum for the Remediation of Impacted Soils* (DTM) was approved by the U.S. EPA. This document outlined an investigation intended to gather necessary data for the selection and design of a solution for the Site soils. To accommodate the collection of additional data, the *Quality Assurance Project Plan* was revised, submitted and approved (January 1996).

During the spring of 1996, the investigation defined in the DTM was implemented. These data were evaluated and presented to the U.S. EPA in September 1996 (*Soil Data Report*) and finalized in December 1996. Based on these data, a contaminant fate and transport model was developed to aid in the determination of what soil remedy was necessary to meet the requirements of the Administrative Order. The results of this effort were presented to the U.S. EPA in December 1996 (*Groundwater Flow and Contaminant Fate and Transport Model).*

Based on these efforts, this EE/CA has been developed. It evaluates the alternatives which may be applied to achieve the standards set forth in the Administrative Order.

2.1.2 Requirements of the AOC

An Administrative Order on Consent (AOC) was issued on September 7, 1994, by a group of potentially responsible parties (PRPs) and the United States Environmental Protection Agency pursuant to Section 106 of CERCLA, regarding the Granville Solvents Site. The AOC orders certain Removal Actions that must be conducted (Section 5.2.e-g). These are:

1) *"By December 20, 1994, install and run a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield. Treat and discharge all extracted water as required by the Work Plan and this Order."*

2) *"In addition, implement action which is necessary to ensure that any water contaminated with any contamination (originating from the Site) that enters the Village of Granville municipal wellfield drinking water supply meets all risk-based and all applicable federal and state drinking water standards. Such action may include utilization of, modification to, and/or addition to the Village of Granville municipal wellfield drinking water supply system. (For example, such action may be, or include, wellhead treatment which meets the performance standards of this Order; or, may*

be, or include, the installation of an appropriate alternative water supply.) Such action shall be implemented at the Village of Granville municipal wellfield to the extent necessary both to reinstate fully the capacity of PW-1 prior to its reactivation and to the extent necessary to prevent any loss in the Village of Granville municipal wellfield drinking water supply capacity (i.e., the collective capacity of PW-1, PW-2, and PW-3) caused, in whole or in part, because of contamination (originating from the Site), or the threat thereof, entering the Village of Granville municipal wellfield water supply."

3) *"Design, install, and operate a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield and shall treat all groundwater within the contamination plume originating from the Site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARS."*

4) *"Treat the soils at the Site to levels which will assure protection of human health and the environment, to levels which will attain all risk-based standards and federal and state ARARs, and to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels. Respondents shall propose a schedule to develop soil treatment objectives, no further action levels, performance monitoring parameters, and a plan for treatment of the soils, in the draft Work Plan."*

The Granville Solvents Site PRP Group has successfully complied with the first three Removal Actions specified by the AOC. They have installed a pump and treat system consisting of two extraction wells and a water treatment system which commenced operation on December 20, 1994, and continues to operate. This system has successfully halted the movement of groundwater contamination originating from the Site toward the Village of Granville wellfield. Since operation began, the system has continued to treat the contaminated groundwater plume to no further action levels. A groundwater monitoring program has been implemented to document the nature and extent of impacted groundwater and to document the progress of the groundwater action (*Groundwater Monitoring Program Plan*, June 1995; *Monitoring Well Installation Report*, September 1996). Recent results from sampling the groundwater monitoring network verify that the contaminated groundwater plume has been reduced in size and is under control by the pump and treat system.

To reinstate the capacity of Village production well PW-1 and preserve the collective capacity of PW-1, PW-2, and PW-3, a new production well (PW-4) was installed by the PRP Group and has been placed into service by the Village of Granville. This well is capable of replacing the previous capacity of PW-1 and there is no apparent effect on the other municipal production wells.

To address the Site soils, an investigation was conducted to gather sufficient data to evaluate the need to take action (*Design Technical Memorandum for the Remediation of Impacted Site Soils*, December 1995; and *Soil Data Report*, December 1996). The results of the investigation yielded valuable insight into the nature and extent of impacted soil on the Site. Based on the data reported in the *Soil Data Report* (December 1996), the soil is impacted by the VOCs and SVOCs listed in Table 2-1:

TABLE 2-1
VOCS AND SVOCS DETECTED IN THE SOILS AT THE GRANVILLE SOLVENTS SITE

1,1,1-Trichloroethane	Methylene Chloride
Tetrachloroethene	4-Methyl-2-Pentanone
Trichloroethene	Xylenes(Total)
cis-1,2-Dichloroethene	1,2-Dichloroethene(total)
1,1-Dichloroethane	Carbon Disulfide
1,1-Dichloroethene	1,1,2-Trichloroethane
Acetone	Chlorobenzene
trans-1,2-Dichloroethene	Benzene
Vinyl Chloride	Bis(2-ethylhexyl)phthalate
Chloroform	Naphthalene
Toluene	2-Methylnaphthalene
Ethylbenzene	Acenaphthylene
2-Butanone	Dibenzofuran
Fluoranthene	Fluorene
Phenanthrene	Di-n-Butyl Phthalate
Benzo(a)anthracene	Anthracene
Benzo(g,h,i)perylene	Carbazole
Benzo(a)pyrene	Benzo(b)fluoranthene
Chrysene	Dibenz(a,h)anthracene
Benzo(k)fluoranthene	Diethyl Phthalate
Indeno(1,2,3-cd)pyrene	Pyrene
Alpha BHC	Styrene
Beta BHC	

The compounds are primarily located beneath and in the vicinity of the warehouse building. The distribution of these compounds in the soil takes the general shape of an inverted cone with the smallest area of impact at or near the surface and the larger area of impact at or near the water table. Based on the results of the soil investigation and recent groundwater monitoring, an evaluation of the appropriate actions is necessary. This Engineering Evaluation/Cost Analysis (EE/CA) constitutes that evaluation. In accordance with CERCLA guidance (*Guidance on Conducting Non-Time-Critical Removal Actions Under CERCLA*, August 1993), and consistent with the NCP, this EE/CA contains those data necessary to support the selection of a response alternative. It relies on existing documentation previously developed and provided to the U.S. EPA. The documents relied upon in this EE/CA are cited where appropriate and full references can be found in Section 6 - References.

2.1.3 Current Conditions

This section describes the geologic and hydrogeologic setting of the Granville Solvents Site (Site) and soil and groundwater conditions at the Site.

2.1.3.1 Geologic Setting

The Site is located on alluvial terrace deposits at the northern edge of Raccoon Creek Valley. The southern portion of the Site is within the 100-year-floodplain of Raccoon Creek. Raccoon Creek Valley was cut by pre-glacial streams and modified by erosion and deposition during glacial periods. The Valley is filled in places with more than 200 feet of unconsolidated sediment deposited primarily by glacial meltwaters from the last glacial event which occurred approximately 12,000 years ago.

The Site is directly underlain by clay-, silt- and sand-rich sediments deposited on the Raccoon Creek floodplain. Below the surficial material is located a highly permeable sand and gravel outwash. Monitoring wells at the site have been drilled into the upper 80 feet of the unconsolidated deposits. Well logs indicate that finer-grained sediments overlie coarse-grained highly-permeable sand and gravel deposits. The finer-grained surficial materials may retard but do not form a hydraulic barrier to infiltration of precipitation from the surface. Well logs of the three Village of Granville production wells and four exploratory borings located 700 to 1,600 feet west of the western boundary of the Site indicate a thickness of at least 180 feet of sand and gravel outwash. Village wells PW-1 and PW-2 are screened from 72 to 95 feet below the surface. PW-3 is screened from 83 to 109 feet below the surface, and PW-4

is screened from 65 to 85 feet below the surface. Based on the well logs of the monitoring and production wells, a typical vertical section may be simplified as a low permeability unit of interbedded fine-grained sand, silt, and clay lenses from the ground surface down to the water table (approximately 20 feet below the surface, typically, at 900 feet amsl). Extending beneath the water table, the aquifer consists chiefly of fine- to coarse-grained sand and silt, interbedded with gravel lenses of various thicknesses.

Bedrock in the Valley walls and beneath surrounding uplands consists of sandstone, siltstone and shale with minor conglomerate units. A bedrock ridge extending from the adjacent Sugarloaf Hill underlies the Site, but probably has little influence on groundwater flow in the overlying deposits.

2.1.3.2 Hydrogeologic Setting

The Raccoon Creek Valley contains a highly productive buried-valley aquifer. The Village of Granville's water production wells combined yield nearly 750,000 gallons per day for daily use. The production wells range in depth from 72 to 109 feet. Previously, wells PW-1 and PW-2 generally were pumped several hours each day at 650 to 750 gallons per minute (gpm). Prior to its abandonment and replacement, production well PW-3 yielded less water and was generally pumped at 450 gpm. The Village installed the new production well PW-3 at the sample location and it currently produces over 700 gpm. A new well, PW-4, screened at 65' has been installed by the PRPs, and placed in service by the Village of Granville as a replacement for PW-1. Production of 750,000 gallons per day is currently met by pumping wells PW-2, PW-3, and PW-4 in various combinations for portions of each day.

In the vicinity of the Site, Raccoon Creek flows generally eastward and ultimately discharges into the Licking River. Before the Village wells were installed, it is believed that groundwater movement at the Site was from the northern upland towards the Creek, with a general down-valley component of flow to the east, typical of aquifers in similar buried valleys in central Ohio. Pumping the Village wells has changed groundwater gradients by capturing groundwater that formerly was discharged to Raccoon Creek, and inducing flow laterally from the Granville Solvents Site area and possibly from other parts of the aquifer recharge area. Groundwater gradients over the site also are low, with only a few tenths of a foot difference in elevation across the Site. Under present conditions, a groundwater divide is present between the Site and the Village wells. The generally flat gradient indicates slow movement of the groundwater in the area.

There are currently no definitive data regarding the interaction between Raccoon Creek and the groundwater, although Raccoon Creek appears to be largely isolated from the aquifer (*Removal Action Aquifer Pumping Test Report*, 1995). The potentiometric data presented in the *Monitoring Well Installation Report* (December 1996) and surface water elevations measured suggest that groundwater just north of Raccoon Creek and adjacent to the Granville Solvents Site is migrating south or north depending on the pumping rates of the production wells in the Village of Granville municipal well field. If the surface water elevation is considered, there is the potential for water to flow either into or out of Raccoon Creek. Through the area of the Site, the stream would appear to be a losing stream based solely on the relative water levels.

There is evidence of heterogeneity in the aquifer which may locally complicate the flow system. The vertical section in which the Village wells are screened consists of 40 to 50 feet of coarse-grained sand and gravel. It is overlain by less permeable sediments, up to 60 feet thick, consisting mostly of sand and silt interbedded with minor beds of silt and some clay. The groundwater elevation in shallow monitoring well MW-3 is approximately 10 feet higher than in the other monitoring wells, indicating a localized perched zone of groundwater. The potentiometric maps indicate that the groundwater gradients are low and consequently the flow velocity beneath the Site is very slow.

The outwash-filled valley in the vicinity of the Village of Granville's production wells, and for several thousand feet east and west of the Site, is approximately 3,000 feet wide. Direct percolation of rainfall, which may amount to as much as 8 to 10 inches annually including runoff from the adjacent hills, plus down-valley underflow and a small increment from the bedrock on the sides of the buried valley, could account for all or most of the water removed annually from the aquifer due to pumping of the Village of Granville's production wells.

A reasonable estimate of the transmissivity of the Raccoon Creek Valley aquifer is 200,000 gallons per day per foot (gpd/ft) based on aquifer pumping tests conducted at the GSS (*Aquifer Pumping Test Report*, 1995). The saturated aquifer thickness is not precisely known below the Site or the Village well field, but is at least 100 feet beneath the Site and may be as thick as 200 feet in the area of the well field. The saturated thickness of the unconsolidated sediment decreases rapidly as the sediment onlaps the bedrock on the north and south valley walls. For a saturated thickness of 100 feet, the hydraulic conductivity is estimated to be 2,000 gpd/ft^2.

The unsaturated zone at the Site and in the vicinity of the Village wells consists of fine-grained sand, silt, and clay up to about 30 feet thick. These deposits form part of a terrace above the present floodplain. The unsaturated material retards, but does not prevent the movement of, water and chemicals downward to the saturated zone. Those compounds with a tendency to bind to the clay particles and organic carbon are inhibited from downward movement. However, percolation of precipitation downward results in the slow transport of these compounds into the saturated zone.

2.1.3.3 Nature and Extent of Contamination - Summary

The VOCs and SVOCs detected in the soil and groundwater at the Granville Solvents Site include the compounds listed in Table 1-1. These have been detected in both soil beneath the Site and groundwater beneath and west of the Site. Details of the nature and extent of these chemicals are provided in Section 2.3 below.

The VOCs and SVOCs were detected in soil in and around the immediate vicinity of the warehouse building (Figure 2). The distribution of these VOCs and SVOCs in the soil takes the shape of an inverted cone, with the smallest area of impact at or near the surface and the larger area of impact at or near the water table.

The VOCs have been detected in the groundwater at low concentrations, approximately 300 feet west of the western property boundary with the higher concentrations beneath the GSI property. With the existing pumping system in operation, these VOCs are well contained at their current extent.

2.2 PREVIOUS REMOVAL ACTIONS

2.2.1 Ohio EPA Emergency Removal Action

Below is a brief description of previous Removal Actions that have been conducted by the Ohio EPA at the GSI. Information was, in part, derived from the following previous work:

Final Report Granville Solvents, Inc.; by Clean Harbors of Kingston, Inc. for Ohio EPA, 1990(?).
Granville Solvents Interim Action; by Compliance Solutions, Inc. for U.S. EPA, August 26, 1992.
Granville Solvents Interim Action; by Compliance Solutions, Inc. for U.S. EPA, January 13, 1993.

Screening Site Inspection Site Evaluation - Granville Solvents, Inc.; by PRC Environmental Management, Inc. for U.S. EPA, November 29, 1993.

The Ohio EPA conducted a state-led interim action, which included characterization and removal of all containerized waste present, excavation, cleaning and removal of all storage tanks, and installation of monitoring wells and sampling of on-site soils to document the existence of groundwater and soil contamination. In June 1990, Clean Harbors, under contract to the Ohio EPA, began the investigation of the GSI site (Clean Harbors 1991). Clean Harbors installed four monitoring wells - MW-1, MW-2, MW-3, and MW-4.

Compliance Solutions decontaminated the warehouse, employee lounge, and steel shed housing the air compressor, disposed of all wastewater, backfilled the tank excavation pits, and completed Site restoration. Compliance Solutions also installed 11 additional monitoring wells around the warehouse and downgradient of the site, to determine the extent of migration of contaminants that had been detected in samples collected from the monitoring wells initially installed by Clean Harbors (Compliance Solutions 1992b). These additional wells were installed to further characterize hydrogeology at the Site and to monitor the potential migration of groundwater contamination.

The VOC compounds that have been detected most frequently in the groundwater and at the highest concentrations at this time are tetrachloroethene (PCE), 1,1,1-trichloroethane (1,1,1-TCA), trichloroethene (TCE), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), and cis-1,2-dichloroethene (cis-1,2-DCE) (Compliance Solutions, 1992b, 1993).

Laboratory results from VOC analyses of the groundwater samples collected during the seven sampling events conducted by the Ohio EPA during 1990-1993 indicate that the following compounds were detected: acetone, bromodichloromethane, chloroform, cis-1,2-dichloroethene, dibromochloromethane, tetrachloroethene, toluene, xylene, trans-1,2-dichloroethene, trichloroethene, vinyl chloride, 1,1-dichloroethane, 1,1,1-trichloroethane, and 1,2,4-trichlorobenzene (U.S. EPA, 1993).

Groundwater samples collected on January 30, 1991, were also analyzed for semivolatile organic compounds (SVOCs), pesticides, and polychlorinated biphenyls (PCBs). No positively identified SVOCs, pesticides, or PCBs were detected in any of these samples.

Surface and subsurface soil samples were collected during OEPA's investigation. Soil samples were collected during installation of monitoring wells MW-2D, MW-4D2, MW-6D, MW-8, MW-8D, and MW-P1. The soils samples were analyzed for VOCs and, generally, the samples that were collected from between 20 and 40 feet below ground surface (bgs) contained the highest concentrations of VOCs. Subsurface samples collected at MW-2D and MW-4D2 contained the highest concentrations of contaminants of the five locations (Compliance Solutions 1993). With the exception of MW-P1, surface soil samples contained relatively low concentrations of VOCs. Chemicals detected in the soil at this time included: benzene, ethylbenzene, cis-1,2-dichloroethene, methylene chloride, tetrachloroethene, toluene, xylene, styrene, trichloroethene, 1,1-dichloroethene, 1,1-dichloroethane, and 1,1,1-trichloroethane.

2.2.2 Groundwater Barrier, Extraction and Treatment System

2.2.2.1 Purpose

The AOC orders the PRP Group to:

1) *"By December 20, 1994, install and run a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield. Treat and discharge all extracted water as required by the Work Plan and this Order."*

2) *"In addition, implement action which is necessary to ensure that any water contaminated with any contamination (originating from the Site) that enters the Village of Granville municipal wellfield drinking water supply meets all risk-based and all applicable federal and state drinking water standards. Such action may include utilization of, modification to, and/or addition to the Village of Granville municipal wellfield drinking water supply system. (For example, such action may be, or include, wellhead treatment which meets the performance standards of this Order; or, may be, or include, the installation of an appropriate alternative water supply.) Such action shall be implemented at the Village of Granville municipal wellfield to the extent necessary both to reinstate fully the capacity of PW-1 prior to its reactivation and to the extent necessary to prevent any loss in the Village of Granville municipal wellfield drinking water supply capacity (i.e., the collective capacity of PW-1, PW-2, and PW-3) caused, in whole or in part, because of*

contamination (originating from the Site), or the threat thereof, entering the Village of Granville municipal wellfield water supply."

3) *"Design, install, and operate a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield and shall treat all groundwater within the contamination plume originating from the Site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARS."*

2.2.2.2 Description

To meet these requirements, the GSS PRP Group designed and installed a two-well groundwater extraction system to halt migration of the plume, protect the Village of Granville wellfield, and to attempt to remediate the plume to levels protective of human health and the environment. A groundwater treatment system was designed and installed to treat the extracted water to below action levels. This water is ultimately discharged to Raccoon Creek, pursuant to authorization from Ohio EPA and U.S. EPA.

2.2.2.3 Alternatives Considered

Prior to implementing the Removal Action, a number of alternatives were considered. Among the actions considered were soil vapor extraction coupled with *in-situ* air sparging, groundwater pump and treat, wellhead treatment, and combinations of these and other alternatives for the impacted groundwater. Groundwater extraction was selected to halt further migration of impacted groundwater. Groundwater treatment by volatilization was selected to treat the groundwater to applicable standards for discharge. Additionally, this action is intended to attempt to treat the groundwater within the plume to no further-action levels which will assure protection of human health and the environment and attain risk-based standards.

Criteria considered for evaluating these alternatives were consistent with the NCP and CERCLA as well as SACM. They include: implementability (both technical feasibility and administrative feasibility); federal and state acceptability; and community acceptability. Cost was also considered.

2.2.2.4 Effectiveness of the Removal Action

Since its start-up in December of 1994, the groundwater pump and treat system has removed approximately 282 million gallons of contaminated groundwater from the aquifer beneath the GSS. During this period (December 1994 to present), the hydraulic divide between GSS and the well field has been continuously maintained with the complete containment of the leading edge of the plume. Concentrations of VOCs have decreased throughout the plume, resulting in a shrinkage of the areal extent of contamination.

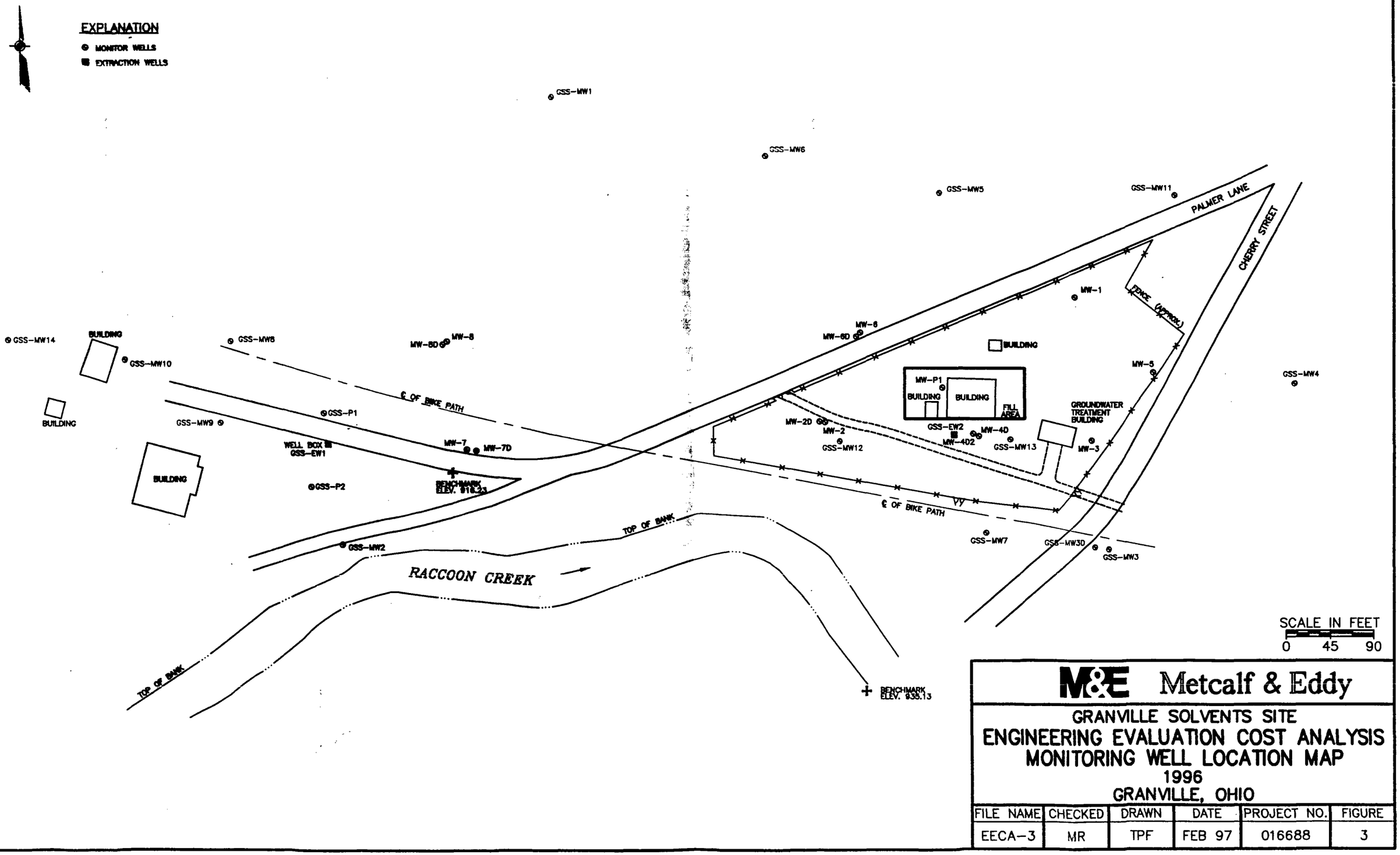
2.2.3 Groundwater Monitoring

2.2.3.1 Purpose

A performance monitoring network for the groundwater extraction and treatment system was installed and sampled to continue to refine the evaluation of the impacted plume of groundwater and to verify the performance of the groundwater extraction and treatment system. A regular sampling program has been implemented using a number of the Ohio EPA-installed wells and wells installed by the PRP Group to detect any changes in the plume configuration and concentrations. The groundwater monitoring has been used to enhance the system operating parameters and to aid in optimizing the performance of the system.

2.2.3.2 The Groundwater Monitoring Network

The existing monitoring well network is comprised of 15 monitoring wells installed by the Ohio EPA and 14 monitoring wells installed by the PRP Group. The 14 wells installed by the PRP Group were intended to help further define the extent of the plume to the north, south, and east of the GSS. Three of these wells were installed deep in the aquifer to provide additional information on the vertical distribution of contaminant concentrations and to define vertical hydraulic gradients. The locations of these wells are shown on Figure 3.



Metcalf & Eddy

GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS MONITORING WELL LOCATION MAP 1996 GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-3	MR	TPF	FEB 97	016688	3

2.2.3.3 Nature and Extent of Contaminants Detected

Following more than a year of operation of the groundwater extraction and treatment system, the groundwater was sampled and analyzed for VOCs in May 1996. The results are illustrated on Figure 4. The extent of impacted groundwater is illustrated on Figure 5.

2.2.4 Reinstatement of the Capacity of Municipal Well PW-1

2.2.4.1 Description

To reinstate the capacity of municipal well PW-1 and to preserve the collective capacity of the remaining wells PW-2 and PW-3, the GSS PRP Group evaluated numerous scenarios, and subsequently installed a new well, PW-4, west and south of the current pumping wells. This new well replaces the previous capacity of PW-1 with no apparent effect on wells PW-2 and PW-3. The location of PW-4 is shown on Figure 6.

2.2.4.2 Alternatives Considered

The GSS PRP Group evaluated three alternatives for reinstating the capacity of inactive well PW-1. These alternatives included the following: (1) taking no further action at the Site and allowing PW-1 to operate as normal (for comparison); (2) treating groundwater pumped from PW-1 that could potentially become contaminated with VOCs; and (3) replacing the capacity of PW-1 with another supply well located upgradient, west of the wellfield. The no further action alternative involved relying on GSS-EW1 from the existing extraction system to act as a hydraulic barrier between the Site and the Village wellfield. The treatment alternative involved installing systems to treat the groundwater pumped from PW-1. The treatment options were UV/Oxidation, and a combination of treatment technologies which included air stripping, carbon adsorption, or retrofitting the existing aerator for VOCs in combination with biological or heat treatment.

Evaluation of these technologies demonstrated that relocation of PW-1 was most effective for satisfying the requirements of the AOC. This evaluation was consistent with the NCP, CERCLA, and SACM.

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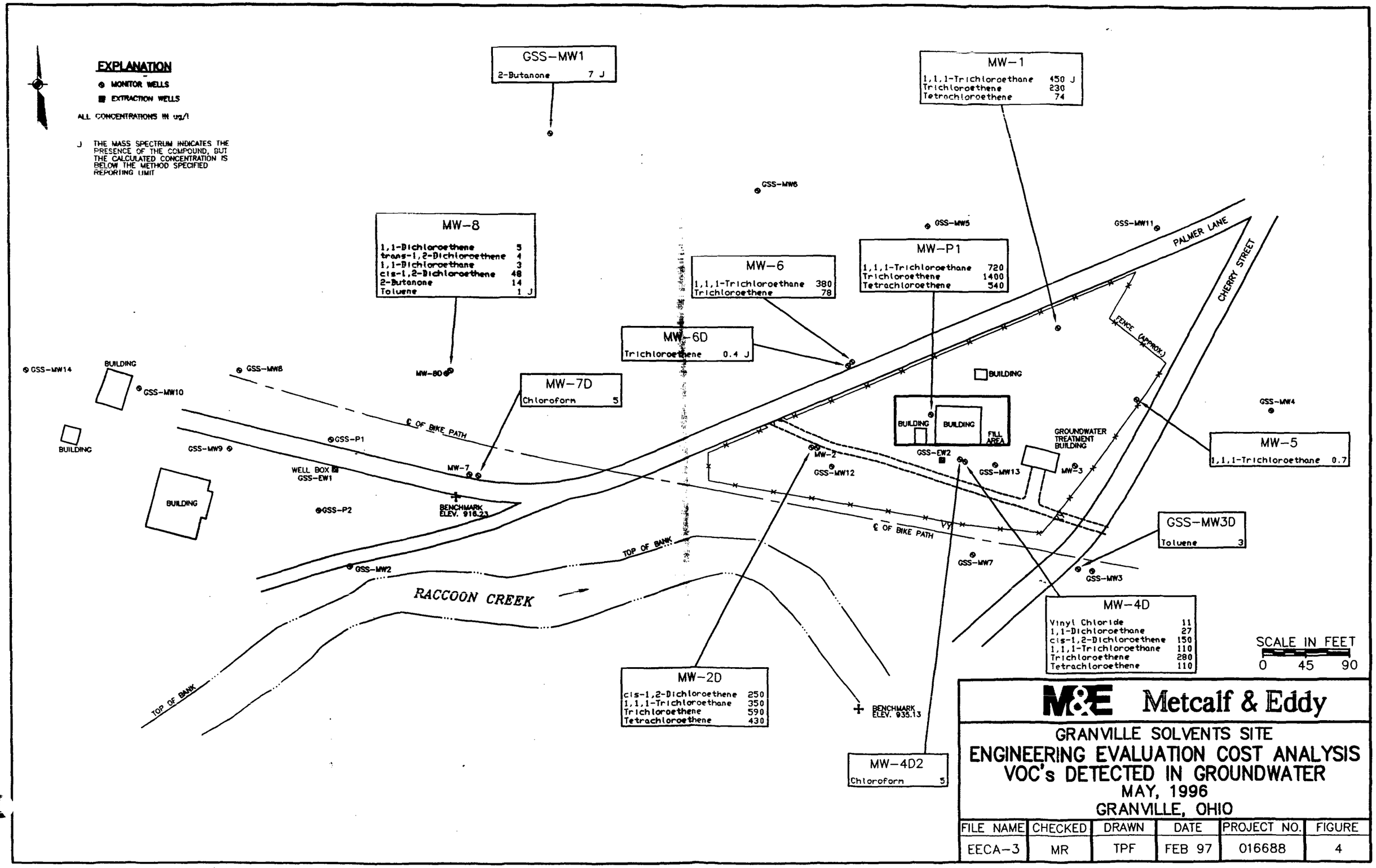


Metcalf & Eddy

GRANVILLE SOLVENTS SITE

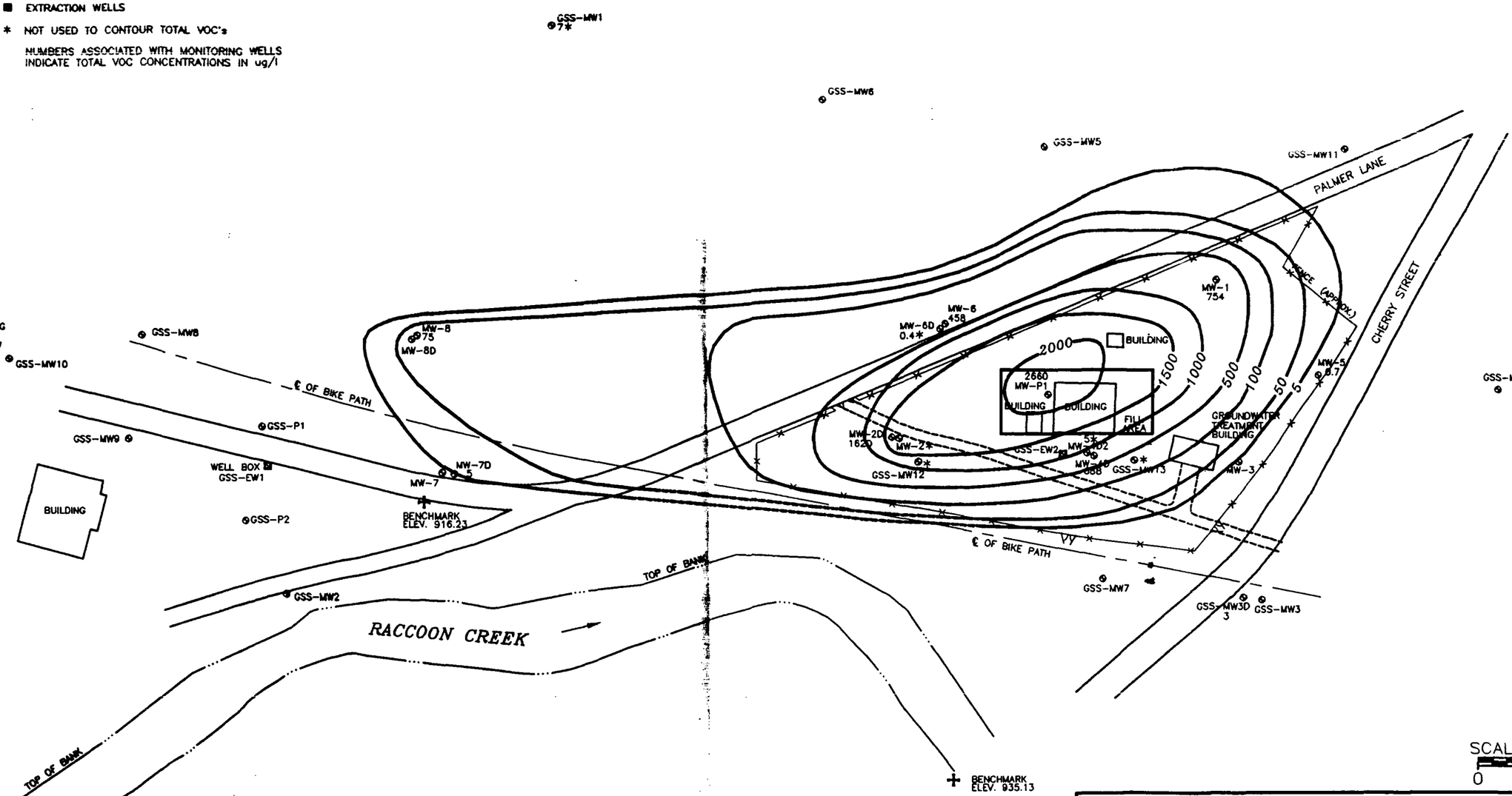
ENGINEERING EVALUATION COST ANALYSIS VOC's DETECTED IN GROUNDWATER MAY, 1996 GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-3	MR	TPF	FEB 97	016688	4

EXPLANATION

- ⊕ MONITOR WELLS
- ■ EXTRACTION WELLS
- * NOT USED TO CONTOUR TOTAL VOC's

NUMBERS ASSOCIATED WITH MONITORING WELLS INDICATE TOTAL VOC CONCENTRATIONS IN ug/l



SCALE IN FEET
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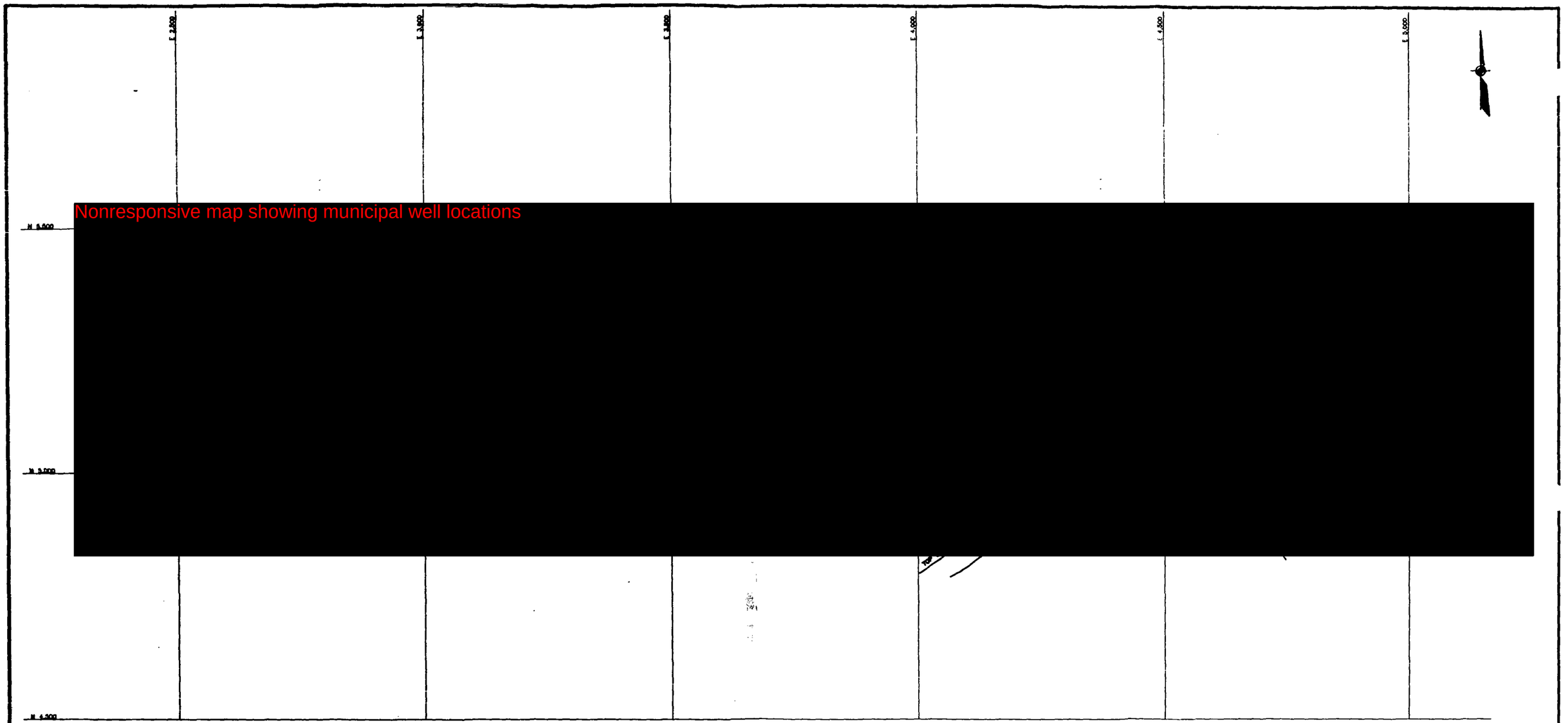
M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
ISOCONCENTRATION CONTOUR MAP OF TOTAL VOC's IN GROUNDWATER
MAY, 1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-5	MR	TPF	FEB 97	016688	5



M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS
LOCATION OF PW-4
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-14	BC	TPF	FEB 97	016688	6

2.3 SOURCE, NATURE, AND EXTENT OF CONTAMINATION

2.3.1 Nature and Extent of Groundwater Contamination

Groundwater data have been collected under three separate efforts. The Ohio EPA collected samples between 1990 and 1993. In the spring of 1994, the Granville Solvents PRP Group collected samples from both monitoring wells and borings using a Hydropunch®. Most recently, new monitoring wells were installed and groundwater sampled in 1996. The results of each effort are described separately below.

2.3.1.1 Groundwater Data from 1990 to 1993

Groundwater monitoring wells were installed by the Ohio EPA between 1990 and 1993. Groundwater samples were obtained by or on behalf of the Ohio EPA several times during that period (Compliance Solutions, 1992 and 1993; U.S. EPA, 1993). Table 2-2 summarizes the analytical results.

2.3.1.2 Groundwater Data from April and May 1994

The GSS PRP Group conducted groundwater studies from April 29, 1994, through May 20, 1994, to determine the extent of impacted groundwater. Hydropunch® samplers were used to sample the groundwater at 20, 40, 60, and 80 feet below the water table at 15 locations on the Site and within the Village of Granville municipal wellfield.

Acetone was tentatively detected in May 1994 and confirmed in that same month in the Hydropunch® samples and groundwater monitoring well samples extending west in the vicinity of PW-1. The U.S. EPA, Ohio EPA, and the Village of Granville were immediately notified of the detection of acetone.

The results of this investigation were reported in detail in the *Groundwater Monitoring Program Plan* (M&E, 1995). Table 2-3 presents the compounds detected during this timeframe.

TABLE 2-2
GROUNDWATER SAMPLING RESULTS SUMMARY 1990-1993*

Sample Number Date Collected Units	Maximum Concentration Detected µg/l	Well Location with Maximum Concentration Detected
1,1,1-trichloroethane	2600	MW-6D
1,1,2-trichloroethane	0.5	MW-4, MW-4D
1,1-dichloroethene	109	MW-1
1,1-dichloroethane	200	MW-4
1,2,4-trichlorobenzene	7	MW-1
1,2-dichloroethene(total)	25	MW-8
acetone	23J	MW-6
benzene	1.2	MW-4
bromodichloromethane	17	MW-6
carbon tetrachloride	1.2	MW-4
chloroethane	1.8	MW-4D
chloroethene	1	MW-4D
chloroform	6	MW-2
cis-1,2-dichloroethene	1,070	MW-4D
cis-1,3-dichloropropene	16	MW-8
dibromochloromethane	7	MW-6
tetrachloroethene	960	MW-4D
toluene	3	MW-7
total xylenes	6	MW-7D
trans-1,2-dichloroethene	23	MW-2
trichloroethene	3,140	MW-4
trichlorofluoromethane	6.1	MW-4
vinyl chloride	5.4	MW-4D

Note:
µg/l - micrograms per liter
ND - Not Detected
NA - Not Analyzed
(a) - Duplicate Sample

* U.S. EPA, 1993, *Screening Site Inspection Site Evaluation - Granville Solvents, Inc.* by PRC Environmental Management, Inc.

TABLE 2-3

GROUNDWATER SAMPLING RESULTS SUMMARY APRIL-MAY 1994*

METHOD	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	EPA 524.2
SAMPLE NUMBER	HP1-1	HP1-2	HP1-3	HP1-4	HP2-1	HP2-2	HP2-3	HP3-1	HP3-2	HP3-3	HP4-1	HP4-2
DATE COLLECTED	4/29/94	4/29/94	4/30/94	4/30/94	5/1/94	5/1/94	5/1/94	5/2/94	5/2/94	5/2/94	5/3/94	5/3/94
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Compound												
dichlorodifluoromethane												
chloromethane	0.5 U	0.5 U	2	2	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
vinyl chloride	0.5 U	0.5 U	0.6	0.6	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
trichlorofluoromethane												
1,1-dichlorethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
acetone	5 U	12	2200	1000 E	860 E	620 E	320 E	33	110	89	120	990 E
carbon disulfide	0.5 U	0.9	0.5	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	5 U	2 U
methylene chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
trans-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,1-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
2,2-dichloropropane												
cis-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
2-butanone	5 U	5 U	5 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	50 U	20 U
bromochloromethane												
chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,1,1-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	8	8	13	80	33
carbon tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,1-dichloropropene												
benzene	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.7	1	0.9	5 U	2 U
1,2-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	140	44
1,2-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
dibromomethane												
bromodichloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
cis-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
4-methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	20 U
toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1	1	2	5 U	2 U
trans-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,1,2-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
tetrachloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,3-dichloropropane												
2-hexanone	5 U	5 U	2 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	50 U	20 U
dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,2-dibromoethane												
chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
1,1,1,2-tetrachloroethane											5 U	
ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
m- & p-xylene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	10 U	4 U
o-xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
xylenes (total)												
styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U
isopropylbenzene												
bromobenzene												
1,1,2,2-tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	5 U	2 U

Note:

U = This indicates the parameter was not detected.

J = The mass spectrum indicates the presence of the compound, but the calculated concentration is less than the reporting limit.

E = The associated concentration exceeds the calibrated concentration range and is therefore an estimated concentration.

CLP LOW = Method for the analysis of low concentration water for volatile (purgeable) organic compounds, in U.S. EPA Contract Laboratory Program Statement of Work for Low Concentration Water Organic Analysis, OLC01.0, 1992.

ug/l = Micrograms per liter.

*** - Metcalf & Eddy, Inc., 1995, Groundwater Monitoring Program Plan for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-3 (Continued)
GROUNDWATER SAMPLING RESULTS SUMMARY APRIL-MAY 1994*

METHOD	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	CLP LOW
SAMPLE NUMBER	HP4-3	HP4-4	HP5-2	HP5-3	HP5-4	HP6-1	HP6-2	HP6-3	HP6-4	HP7-1	HP7-2	HP8-1
DATE COLLECTED	5/4/94	5/4/94	5/5/94	5/5/94	5/5/94	5/5/94	5/5/94	5/5/94	5/6/94	5/6/94	5/6/94	5/9/94
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Compound												
dichlorodifluoromethane												
chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
vinyl chloride	0.5 U	0.7	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
trichlorofluoromethane												
1,1-dichlorethene	0.5 U	0.5 U	0.4 J	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
acetone	300 E	50	360 E	480 E	240 E	5100	28	170 E	160 E	860	1300 E	3600 E
carbon disulfide	0.5 U	0.5 U	0.7	0.6	0.5 U	50 U	0.3 J	0.5 U	0.5 U	5 U	5 U	1.2 U
methylene chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
trans-1,2-dichloroethene	0.5 U	0.5 U	1.8	0.8	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
1,1-dichloroethane	1.7	0.9	19	8.2	5.6	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
2,2-dichloropropane												
cis-1,2-dichloroethene	0.5 U	0.3 J	56	27	18	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
2-butanone	5 U	5 U	5 U	5 U	5 U	500 U	5 U	5 U	5 U	50 U	50 U	12 U
bromochloromethane												
chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
1,1,1-trichloroethane	15	9.5	34	14	8.8	50 U	0.7	0.8	0.5 U	5 U	5 U	50
carbon tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
1,1-dichloropropene												
benzene	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.6	0.5 U	5 U	5 U	5
1,2-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
trichloroethene	23	13	31	10	5	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	27
1,2-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
dibromomethane												
bromodichloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
cis-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
4-methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	500 U	5 U	5 U	5 U	50 U	50 U	12 U
toluene	0.5 U	0.2 J	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
trans-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
1,1,2-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
tetrachloroethene	0.5 U	0.5 U	26	8.1	3.9	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	21
1,3-dichloropropane												
2-hexanone	5 U	5 U	5 U	5 U	5 U	500 U	5 U	5 U	5 U	50 U	50 U	12 U
dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U			1.2 U
1,2-dibromoethane										5 U	5 U	
chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
1,1,1,2-tetrachloroethane										5 U	5 U	
ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
m- & p-xylene	1 U	1 U	1 U	1 U	1 U	100 U	1 U	1 U	1 U	10 U	10 U	2.5 U
o-xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
xylenes (total)												
styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U
isopropylbenzene												
bromobenzene												
1,1,2,2-tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	50 U	0.5 U	0.5 U	0.5 U	5 U	5 U	1.2 U

Note:
U = This indicates the parameter was not detected.
J = The mass spectrum indicates the presence of the compound, but the calculated concentration is less than the reporting limit.
E = The associated concentration exceeds the calibrated concentration range and is therefore an estimated concentration.
CLP LOW = Method for the analysis of low concentration water for volatile (purgeable) organic compounds, in U.S. EPA Contract Laboratory Program Statement of Work for Low Concentration Water Organic Analysis, OLC01.0, 1992.
ug/l = Micrograms per liter.
*** – Metcalf & Eddy, Inc., 1995, Groundwater Monitoring Program Plan for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-3 (Continued)
GROUNDWATER SAMPLING RESULTS SUMMARY APRIL-MAY 1994*

METHOD	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW	CLP LOW
SAMPLE NUMBER	HP8-2	HP8-3	HP9-2	HP9-3	HP9-4	HP10 1	HP10 2	HP10-3	HP10-4	HP11-1	HP11-2	HP11-3
DATE COLLECTED	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94	5/9/94	5/10/94	5/10/94	5/10/94
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Compound												
dichlorodifluoromethane												
chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
vinyl chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
trichlorofluoromethane												
1,1-dichlorethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
acetone	1500 E	900 E	5 U	600 E	150 E	43	48	8	160 E	0.5 U	140	73
carbon disulfide	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	0.5 U	0.5 U	0.5 U	5 U	1 U	0.5 U
methylene chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
trans-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2	1	0.8	0.4 J	0.5 U	1 U	0.5 U
1,1-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	3	1	2	1	0.5 U	2	0.5 U
2,2-dichloropropane												
cis-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	2	0.5 U	73	24	19	12	0.5 U	9	5
2-butanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U
bromochloromethane												
chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1,1-trichloroethane	53 E	34	0.5 U	0.5 U	0.5 U	45	17	12	7	0.5 U	40	21
carbon tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1-dichloropropene												
benzene	0.6	1	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.3 J	0.5 U	1 U	0.5 U
1,2-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
trichloroethene	18	11	0.5 U	0.5 U	0.5 U	41	12	9	6	0.5 U	47	24
1,2-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
dibromomethane												
bromodichloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
cis-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
4-methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U
toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
trans-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1,2-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
tetrachloroethene	9	5	0.5 U	0.5 U	0.5 U	13	5	3	2	0.5 U	17	9
1,3-dichloropropane												
2-hexanone	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	10 U	5 U
dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,2-dibromoethane												
chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1,1,2-tetrachloroethane												
ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
m- & p-xylene	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	1 U	2 U	1 U
o-xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
xylenes (total)												
styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
isopropylbenzene												
bromobenzene												
1,1,2,2-tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U

Note:
U = This indicates the parameter was not detected.
J = The mass spectrum indicates the presence of the compound, but the calculated concentration is less than the reporting limit.
E = The associated concentration exceeds the calibrated concentration range and is therefore an estimated concentration.
CLP LOW = Method for the analysis of low concentration water for volatile (purgeable) organic compounds, in U.S. EPA Contract Laboratory Program Statement of Work for Low Concentration Water Organic Analysis, OLC01.0, 1992.
ug/l = Micrograms per liter.
*** - Metcalf & Eddy, Inc., 1995, Groundwater Monitoring Program Plan for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-3 (Continued)
GROUNDWATER SAMPLING RESULTS SUMMARY APRIL-MAY 1994*

METHOD	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	CLP Low	CLP Low	CLP Low
SAMPLE NUMBER	HP12-1	HP12-2	HP12-3	HP12-4	HP13-1	HP13-2	HP13-3	HP14-60	HP13	HP14	HP15
DATE COLLECTED	5/14/94	5/14/94	5/14/94	5/14/94	5/14/94	5/14/94	5/14/94	5/19/94	5/19/94	5/19/94	5/19/94
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Compound											
dichlorodifluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U				
chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
vinyl chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
trichlorofluoromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,1-dichlorethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
acetone								9	5 U	5 U	5 U
carbon disulfide									1 U	1 U	1 U
methylene chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	2 U	2 U	2 U
trans-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,1-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
2,2-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
cis-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
2-butanone									5 U	5 U	5 U
bromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,1,1-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
carbon tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,1-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,2-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	0.5 J	1 U
1,2-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
dibromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
bromodichloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
cis-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
4-methyl-2-pentanone									5 U	5 U	5 U
toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
trans-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,1,2-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
tetrachloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,3-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
2-hexanone									5 U	5 U	5 U
dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,2-dibromoethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,1,1,2-tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
m- & p-xylene											
o-xylene											
xylenes (total)	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
isopropylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
bromobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,1,2,2-tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,2,3-trichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
n-propylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
2-chlorotoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
4-chlorotoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

Note:
U = This indicates the parameter was not detected.
J = The mass spectrum indicates the presence of the compound, but the calculated concentration is less than the reporting limit.
E = The associated concentration exceeds the calibrated concentration range and is therefore an estimated concentration.
CLP LOW = Method for the analysis of low concentration water for volatile (purgeable) organic compounds, in U.S. EPA Contract Laborator[illegible]ogram Statement of Work for Low Concentration Water Organic Analysis, OLC01.0, 1992.
ug/l = M[illegible]ms per liter.
*** - Met[illegible] Eddy, Inc., 1995, Groundwater Monitoring Program Plan for the Granville Solvents Site[illegible].nville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-3 (Continued)

GROUNDWATER SAMPLING RESULTS SUMMARY APRIL-MAY 1994*

METHOD	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	CLP Low	CLP Low	CLP Low
SAMPLE NUMBER	HP12-1	HP12-2	HP12-3	HP12-4	HP13-1	HP13-2	HP13-3	HP14-60	HP13	HP14	HP15
DATE COLLECTED	5/14/94	5/14/94	5/14/94	5/14/94	5/14/94	5/14/94	5/14/94	5/19/94	5/19/94	5/19/94	5/19/94
UNITS	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
Compound											
tert-butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,2,4-trimethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
sec-butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,3-dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,4-dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
p-isopropyltoluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,2-dichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
n-butylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,2-dibromo-3-chloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	1 U	1 U	1 U
1,2,4-trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
hexachlorobutadiene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
naphthalene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			
1,2,3-trichlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U			

Note:

U = This indicates the parameter was not detected.

J = The mass spectrum indicates the presence of the compound, but the calculated concentration is less than the reporting limit.

E = The associated concentration exceeds the calibrated concentration range and is therefore an estimated concentration.

CLP LOW = Method for the analysis of low concentration water for volatile (purgeable) organic compounds, in U.S. EPA Contract Laboratory Program Statement of Work for Low Concentration Water Organic Analysis, OLC01.0, 1992.

ug/l = Micrograms per liter.

*** - Metcalf & Eddy, Inc., 1995, Groundwater Monitoring Program Plan for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

2.3.1.3 Current Groundwater Data: 1996

As part of the *Groundwater Monitoring Program Plan*, 1995, approved by the U.S. EPA, the PRP Group was required to install additional monitoring wells and piezometers to better define the extent of the impacted plume of groundwater and to verify the performance of the groundwater extraction and treatment system. Thirteen new monitoring wells and two piezometers were installed at the site during December 1995. Drilling and monitoring well installation and construction procedures were presented in the *Monitoring Well Installation Report*, 1996. A regular groundwater quality sampling program and water level monitoring program were implemented based on the *Groundwater Monitoring Program Plan* (1995).

Following the installation of the monitoring wells and approval by the U.S. EPA of the Quality Assurance Project Plan (QAPP, 1996), 26 monitoring wells were sampled and were analyzed as required. Analytical results are presented in the *Monitoring Well Installation Report*, 1996.

The *Monitoring Well Installation Report*, 1996 presents current and historic potentiometric surface maps of the Site. In most of the buried valley aquifer, the groundwater is under confining pressure created by overlying clay-rich soils. Water levels in most wells drilled in the aquifer rise to levels of 10 to 20 feet below the ground surface.

Despite minor seasonal fluctuations in the potentiometric surface three distinct zones of pumping (EW-1, EW-2 and the Village of Granville wellfield) are present on each of the above-referenced potentiometric maps. Groundwater divides are evident between each zone of pumping.

Raccoon Creek appears to be largely isolated from the aquifer. This information was obtained from pumping tests which indicated that the Creek does not interact significantly with the aquifer under pumping conditions (*Removal Action Aquifer Pumping Test Report*, 1995). If interaction were present between the Creek and aquifer, the Creek would be a losing stream through the area of the Site based upon relative water levels (*Monitoring Well Installation Report*, 1996). Water added to the aquifer from the stream would tend to diminish the effects of the Granville wells on the aquifer beneath GSS.

Within the aquifer, the vertical hydraulic gradients can be estimated from the new deep monitoring well GSS-MW3D and the paired shallow well GSS-MW3. On October 11, 1996, the groundwater elevation

measured in GSS-MW3 (screened from 872 to 882 feet) and GSS-MW3D (screened from 811 to 831 feet) was measured at 896.31 and 896.22, respectively. Thus, a downward vertical head of 0.09 feet was measured between GSS-MW3 and GSS-MW3D on October 11, 1996.

Analytical results of the sampling events are presented in the *Monitoring Well Installation Report*, September 1996, and are summarized in Table 2-4.

Impact to groundwater and soil is currently being addressed by the Granville Solvents Site PRP Group with a pump and treat remediation system which has been in operation since December, 1994. The system has contained the groundwater contaminant plume, preventing further migration toward Granville's wellfield and reducing the size and mass of the contaminant plume. Moreover, compounds leaching from the soil have been captured by the on-site extraction well, EW-2.

M&E obtained two groundwater samples from monitoring well MW-5 and municipal production well PW-2 and analyzed them for conventional water quality parameters. These analyses provide existing water quality information which M&E may use to predict potential problems in the extraction and treatment system. Results of the analysis are summarized in Table 2-5. The groundwater samples collected from these wells were considered representative of the water quality at the Site (MW-5) and the municipal wellfield (PW-2).

Analytical results of groundwater samples collected from MW-5 and PW-2 indicated hardness levels of 450 mg/l and 410 mg/l, respectively. Water containing hardness greater than 250 mg/l may cause scaling in some treatment processes. Suspended solids levels of 4.7 mg/l and 7 mg/l were reported in the water samples collected from MW-5 and PW-2, respectively. Generally, suspended solids concentrations below 25 mg/l do not require pre-treatment in most treatment processes. Total dissolved solids in water samples collected from MW-5 and PW-2 were 750 mg/l and 510 mg/l, respectively. Concentrations above 100 mg/l normally require pre-treatment in most treatment processes.

Other water quality parameters measured were pH and iron concentrations. Iron concentrations in groundwater collected at MW-5 and PW-2 were 92 μg/l and 1,300 μg/l, respectively. The pH levels at both locations were slightly above neutral (7.0). Water from MW-5 had a pH level of 7.1 Standard Units (S.U.) and water from PW-2 had a pH level of 7.2 S.U.

TABLE 2-4

GROUNDWATER SAMPLING RESULTS SUMMARY - 1996*

Sample Number	MW-1	MW-2	MW-2D	MW-3	MW-4D	MW-4D2	MW-5	MW-5(a)
Date Collected	5/13/96	5/8/96	5/8/96	5/8/96	5/8/96	5/8/96	5/13/96	5/13/96
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Parameters								
1,1,1-trichloroethane	450 J	NS	350	NS	110	0.5 U	0.7	0.8
1,1,2,2-tetrachloroethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	5 U	NS	17 U	NS	27	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene	NA							
1,2,4-trichlorobenzene	NA							
1,2-dichlorobenzene	NA							
1,2-dichloroethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethene(total)	NA							
1,2-dichloropropane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene	NA							
2-butanone	50 U	NS	170 U	NS	84 U	5 U	5 U	5 U
2-hexanone	50 U	NS	170 U	NS	84 U	5 U	5 U	5 U
4-methyl-2-pentanone	50 U	NS	170 U	NS	84 U	5 U	5 U	5 U
acetone	50 U	NS	170 U	NS	84 U	5 U	5 U	5 U
benzene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
bromodichloromethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
bromoform	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
bromomethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
carbon disulfide	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
carbon tetrachloride	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
chlorobenzene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
chloroethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
chloroethene	NA							
chloroform	5 U	NS	17 U	NS	8 U	5	0.5 U	0.5 U
chloromethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethene	5 U	NS	250	NS	150	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
dibromochloromethane	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
ethylbenzene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
methylene chloride	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
m- & p-xylene	NA							
o-xylene	NA							
styrene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
tetrachloroethene	74	NS	430	NS	110	0.5 U	0.5 U	0.5 U
toluene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
total xylenes	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
trans-1,2-dichloroethene	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropen	5 U	NS	17 U	NS	8 U	0.5 U	0.5 U	0.5 U
trichloroethene	230	NS	590	NS	280	0.5 U	0.5 U	0.5 U
trichlorofluoromethane	NA							
vinyl chloride	5 U	NS	17 U	NS	11	0.5 U	0.5 U	0.5 U

NOTE:

µg/l - Micrograms per liter

(a) - Duplicate of MW-1 on 1/30/91

J - The mass spectrum indicates the presence of the compound, but calculated result is less than the method specified reporting limit.

U - This indicates the parameter was not detected.

NA - Not Analyzed

ND - Not Detected

NS - Not Sampled

*** - Metcalf & Eddy, Inc., 1996, Monitoring Well Installation Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-4 (Continued)

GROUNDWATER SAMPLING RESULTS SUMMARY - 1996*

Sample Number	MW-6	MW-6D	MW-7	MW-7D	MW-8	MW-8D
Date Collected	5/8/96	5/14/96	5/13/96	5/8/96	5/9/96	5/14/96
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Parameters						
1,1,1-trichloroethane	380	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1,2,2-tetrachloroethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1,2-trichloroethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,1-dichloroethene	10 U	0.5 U	0.5 U	0.5 U	5	0.5 U
1,1-dichloroethane	10 U	0.5 U	0.5 U	0.5 U	3	0.5 U
1,2,3-trichlorobenzene						
1,2,4-trichlorobenzene						
1,2-dichlorobenzene						
1,2-dichloroethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,2-dichloroethene(total)						
1,2-dichloropropane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
1,4-dichlorobenzene						
2-butanone	100 U	5 U	5 U	5 U	14	5 U
2-hexanone	100 U	5 U	5 U	5 U	13 U	5 U
4-methyl-2-pentanone	100 U	5 U	5 U	5 U	13 U	5 U
acetone	100 U	5 U	5 U	5 U	13 U	5 U
benzene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
bromodichloromethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
bromoform	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
bromomethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
carbon disulfide	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
carbon tetrachloride	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
chlorobenzene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
chloroethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
chloroethene						
chloroform	10 U	0.5 U	0.5 U	5	1 U	0.5 U
chloromethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
cis-1,2-dichloroethene	10 U	0.5 U	0.5 U	0.5 U	48	0.5 U
cis-1,3-dichloropropene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
dibromochloromethane	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
ethylbenzene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
methylene chloride	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
m- & p-xylene						
o-xylene						
styrene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
tetrachloroethene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
toluene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
total xylenes	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
trans-1,2-dichloroethene	10 U	0.5 U	0.5 U	0.5 U	4	0.5 U
trans-1,3-dichloropropene	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U
trichloroethene	78	0.4 J	0.5 U	0.5 U	1 U	0.5 U
trichlorofluoromethane						
vinyl chloride	10 U	0.5 U	0.5 U	0.5 U	1 U	0.5 U

NOTE:

µg/l -- Micrograms per liter

(a) - Duplicate of MW-1 on 1/30/91

J - The mass spectrum indicates the presence of the compound, but calculated result is less than the method specified reporting limit.

U -- This indicates the parameter was not detected.

NA -- Not Analyzed

ND -- Not Detected

NS -- Not Sampled

* - Metcalf & Eddy, Inc., 1996, Monitoring Well Installation Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.

TABLE 2-4

GROUNDWATER SAMPLING RESULTS SUMMARY – 1996*

Method	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2
Sample Number	GSS-MW1	GSS-MW2	GSS-MW3	GSS-MW3D	GSS-MW4	GSS-MW5	GSS-MW5(a)	GSS-MW6	GSS-MW7	GSS-MW8
Date Collected	5/9/96	5/8/96	5/13/96	5/13/96	5/13/96	5/9/96	5/9/96	5/9/96	5/13/96	5/9/96
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Parameters										
1,1,1-trichloroethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2,2-tetrachloroethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene										
1,2,4-trichlorobenzene										
1,2-dichlorobenzene										
1,2-dichloroethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethene(total)										
1,2-dichloropropane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene										
2-butanone	7 J	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
2-hexanone	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
4-methyl-2-pentanone	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
acetone	10 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U	5 U
benzene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bromodichloromethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bromoform	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bromomethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
carbon disulfide	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
carbon tetrachloride	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chlorobenzene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chloroethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chloroethene										
chloroform	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chloromethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
dibromochloromethane	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ethylbenzene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
methylene chloride	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m- & p-xylene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-xylene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
styrene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tetrachloroethene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
toluene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
total xylenes		0.5 U	0.5 U							
trans-1,2-dichloroethene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trichloroethene	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trichlorofluoromethane										
vinyl chloride	1 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

NOTE:

µg/l – Micrograms per liter
(a) – Duplicate of MW-1 on 1/30/91
J – The mass spectrum indicates the presence of the compound, but calculated result is less than the method specified reporting limit.
U – This indicates the parameter was not detected.
NA – Not Analyzed
ND – Not Detected
NS – Not Sampled
* – [illegible] & Eddy, Inc., 1996, Monitoring Well Installation Report for the Granville Solvents Site in Gra[illegible] Ohio, fo[illegible] Granville Solvents Site PRP Group.

TABLE 2-4

GROUNDWATER SAMPLING RESULTS SUMMARY – 1996*

Method	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2	EPA 524.2
Sample Number	GSS-MW9	GSS-MW10	GSS-MW11	GSS-MW12	GSS-MW13	GSS-MW14
Date Collected	5/9/96	5/9/96	5/13/96	5/8/96	5/8/96	5/9/96
Units	µg/l	µg/l	µg/l	µg/l	µg/l	µg/l
Parameters						
1,1,1-trichloroethane	0.5 U	0.5 U	4 U	0.5 U	0.5 U	0.5 U
1,1,2,2 tetrachloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1,2-trichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,1-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2,3-trichlorobenzene						
1,2,4-trichlorobenzene						
1,2-dichlorobenzene						
1,2-dichloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,2-dichloroethene(total)						
1,2-dichloropropane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
1,4-dichlorobenzene						
2-butanone	5 U	5 U	5 U	5 U	5 U	5 U
2-hexanone	5 U	5 U	5 U	5 U	5 U	5 U
4-methyl-2-pentanone	5 U	5 U	5 U	5 U	5 U	5 U
acetone	5 U	5 U	5 U	5 U	5 U	5 U
benzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bromodichloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bromoform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
bromomethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
carbon disulfide	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
carbon tetrachloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chlorobenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chloroethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chloroethene						
chloroform	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
chloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
cis-1,3-dichloropropene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
dibromochloromethane	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
ethylbenzene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
methylene chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
m- & p-xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
o-xylene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
styrene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
tetrachloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
toluene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
total xylenes						
trans-1,2-dichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trans-1,3-dichloropropen	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trichloroethene	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U
trichlorofluoromethane						
vinyl chloride	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U	0.5 U

NOTE:

µg/l – Micrograms per liter
(a) – Duplicate of MW-1 on 1/30/91
J – The mass spectrum indicates the presence of the compound, but calculated result is less than the method specified reporting limit.
U – This indicates the parameter was not detected.
NA – Not Analyzed
ND – Not Detected
NS – Not Sampled
* – Metcalf & Eddy, Inc., 1996, Monitoring Well Installation Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.

TABLE 2-5
GROUNDWATER QUALITY DATA

Test Name	Analytical Method	PW-2 Result Units	MW-5 Result Units
Bicarbonate, HCO_3	-	300 mg/l	340 mg/l
Biological Oxygen Demand	Std M-5210B[2]	<2.2 mg/l	<2.2 mg/l
Calcium	215.1[1]	93,000 µg/l	110,000 µg/l
Chemical Oxygen Demand	410.4[1]	<20 mg/l	<20 mg/l
Chloride	Std M-4500-Cl B_2	62 mg/l	110 mg/l
Conductivity	Std M-2510B[2]	820 µmhos/cm	1,100 µmhos/cm
Hardness	130.2[1]	410 mg/l	450 mg/l
Iron	236.1[1]	1,300 µg/l	92 µg/l
Manganese	243.1[1]	130 µg/l	<10 µg/l
Nitrate	353.2[1]	0.03 mg/l	3 mg/l
pH	150.1[1]	7.2 S.U.	7.1 S.U.
Sulfate	375.4[1]	58 mg/l	50 mg/l
Suspended Solids	160.2[1]	7 mg/l	4.7 mg/l
Total Alkalinity	Std M-2320B[2]	300 mg/l	340 mg/l
Total Dissolved Solids	160.1[1]	510 mg/l	750 mg/l
Total Organic Carbon	415.1[1]	8.3 mg/l	8.9 mg/l

1 Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, March 1983.

2 Standard Methods for the Examination of Water and Wastewater, 17th Edition, 1989.

2.3.2 Nature and Extent of Soil Contamination

Soil data have been collected at the site on three separate occasions. The Ohio EPA conducted investigations between 1990 and 1993. The Granville Solvents PRP Group undertook investigations in the beginning of 1994 and again in the beginning of 1996. The results of each of these efforts are discussed below.

2.3.2.1 Soil Data from 1990 to 1993

Complete documentation of the soil boring program and of drilling and installation of MW-1, MW-2, MW-3, and MW-4 by the Ohio EPA is unavailable. The Ohio EPA's well logs were not filed with the Ohio Department of Natural Resources (ODNR) and have not been provided in public documents. The findings reported below are based on the analytical results provided as referenced.

During June 1991, Compliance Solutions, Inc., was retained by the Ohio EPA to install five groundwater monitoring wells. Compliance Solutions (1992) reported that monitoring wells MW-4D, MW-5, MW-7 and MW-7D were installed between June 26 and June 28, 1991. Monitoring well MW-6 was installed in October, 1991. These wells reportedly were installed using 4.5" hollow stem augers and continuous split-spoon samples were collected for each well. During the installations of monitoring wells MW-2D, MW-4D2, MW-6D, MW-8, MW-8D, and MW-P1 in May of 1992 (Compliance Solutions, 1993), soil samples were collected from the surface down to approximately forty feet below ground surface. The soil samples reportedly were collected using a split-spoon sampler. The samples were sent to an Ohio EPA contract laboratory and analyzed for VOCs. Total VOC concentrations were detected as high as 2,490 μg/kg in a soil sample collected from MW-P1 at three feet below ground surface. Results of the investigation are summarized in Table 2-6.

2.3.2.2 Soil Data from April and May 1994

During April and May, 1994, additional soil investigations were conducted by M&E to further define the extent of the impacted soils at the Site (*Work Plan for the Removal Action*, 1995). Soil samples were collected at two-foot depth intervals using a Geoprobe® soil sampler until the groundwater table was encountered. Soil samples were also collected using two-foot, split-spoon samplers at locations where

TABLE 2-6
SOIL SAMPLING RESULTS SUMMARY 1990-1993*

Parameter	Maximum Concentration Detected (µg/kg)	Locations with Maximum Concentration Detected (see Figure 2)
benzene	3,800	NW Corner of Warehouse Building
ethylbenzene	87,700	NW Corner of Warehouse Building
cis-1,2-dichloroethene	3,630	NW Corner of Warehouse Building
methylene chloride	10,800	NW Corner of Warehouse Building
tetrachloroethene	204,000	NW Corner of Warehouse Building
toluene	160,600	NW Corner of Warehouse Building
total xylenes	297,300	NW Corner of Warehouse Building
trichloroethene	202,300	NW Corner of Warehouse Building
1,1-dichloroethane	153	Pit in Limehouse
1,1-dichloroethene	124	Pit in Limehouse
1,1,1-trichloroethane	242,900	NW Corner of Warehouse Building

* U.S. EPA, 1993, *Screening Site Inspection Site Evaluation - Granville Solvents, Inc.* by PRC Environmental Management, Inc.

groundwater was to be collected using the Hydropunch®. Results of the analysis from the laboratory are summarized in Table 2-7 below.

2.3.2.3 Soil Data from April 1996 to Present

Pursuant to the requirements of the AOC and the *Design Technical Memorandum for the Remediation of Impacted Soils* which was approved by U.S. EPA in February 1996, an investigation was implemented in April 1996 to obtain physical and chemical soil data to evaluate treatment technologies and development of the *Engineering Evaluation/Cost Analysis* (EE/CA). The *Design Technical Memorandum for the Remediation of Impacted Soil* (1995) detailed the plan for this investigation. The results of this investigation have been provided to U.S. EPA in the *Soil Data Report* (1996).

Soil borings were drilled at 30 locations on the site and soil samples were collected for chemical analysis. The Design Technical Memorandum specified that 27 borings would be drilled and sampled from a 50- x 50-foot grid. Actual drilling locations approximated the center of each grid space as access allowed. Three additional borings (SB-28, SB-29, and SB-30) were drilled and sampled as preliminary analytical results from SB-08 identified impacted soil.

All samples obtained during this drilling program were analyzed for volatile organic compounds (VOCs) (Method SW-8260). At eight of these locations samples were analyzed for semivolatile organic compounds (SVOCs) (Method SW-8270) and RCRA metals (SW-6010/7000). Background samples were collected from seven boring locations near the Site. Background samples were analyzed for the eight RCRA metals using the same analytical methods listed above. The chemical data were presented in the *Soil Data Report* (1996).

Soil samples were collected at six soil boring locations and analyzed for physical parameters (particle size, Atterburg limits, USCS classification, moisture content, specific gravity, cation exchange capacity, bulk density, redox potential (Eh), total organic carbon (TOC), soil pH, and flexible wall permeability). Results of this testing were reported in the *Soil Data Report* (September 1996 and December 1996).

As reported in the *Soil Data Report* (1996), the chemicals that were detected in Site soils are listed on Table 2-8 below. Figures 7-14 illustrate the results in map view.

TABLE 2-7
SOIL SAMPLING RESULTS SUMMARY APRIL-MAY 1994*

Date Collected	5/1/94		5/2/94		5/2/94		5/2/94		5/2/94		5/3/94		5/3/94		5/3/94	
Sample Number	SS-10		SS-15		SS-19		SS-20		SS-30		SS-31		SS-39		SS-43	
Depth (Feet)	4-6		6-8		12-14		2-4		20-22		12-14		20-22		12-14	
Units	µg/kg		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg		µg/kg	
Compound																
chloromethane	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
vinyl chloride	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
bromomethane	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
chloroethane	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
1,1-dichloroethene	6	U	6	U	6	U	6	U	13	J	6	U	700	U	6	U
acetone	12	U	32	U	12	U	12	U	62	U	12	U	1400	U	8	J
carbon disulfide	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
methylene chloride	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
trans-1,2-dichloroethene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
1,1-dichloroethene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
cis-1,2-dichloroethene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
2-butanone	12	U	5	J	12	U	12	U	62	U	12	U	1400	U	11	U
chloroform	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
1,1,1-trichloroethane	6	U	6	U	6	U	6	U	200	U	6	U	380	J	6	U
carbon tetrachloride	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
benzene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
1,2-dichloroethane	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
trichloroethene	6	U	6	U	1	J	6	U	1300	U	6	U	2400	U	6	U
1,2-dichloropropane	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
bromodichloromethane	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
cis-1,3-dichloropropene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
4-methyl-2-pentanone	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
toluene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
trans-1,3-dichloropropene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
1,1,2-trichloroethane	6	J	6	U	6	U	6	U	31	U	6	U	700	U	6	U
tetrachloroethene	5	U	6	U	2	J	6	U	230	U	6	U	6100	U	6	U
2-hexanone	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
dibromochloromethane	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
chlorobenzene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
ethylbenzene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
m- & p-xylene	12	U	13	U	12	U	12	U	62	U	12	U	1400	U	11	U
o-xylene	6	U	6	U	6	U	6	U	31	U	6	U	700	U	6	U
styrene	6	U	6	U	6	U	6	U	31		6	U	700	U	6	U
bromoform	6	U	6	U	6	U	6	U	31		6	U	700		6	U
1,1,2,2-tetrachloroethane	6		6	U	6	U	6	U	31		6	U	700		6	U

Note:
U - Not Detected. The number represents the method detection limit.
J - The mass spectrum indicates the presence of the compound, but the calculated concentration is less than the reporting limit.
E - The associated concentration exceeds the calibrated concentration range and is therefore an estimated concentration.
µg/Kg - Micrograms per kilogram.
* - Metcalf & Eddy, Inc., 1995, Groundwater Monitoring Program Plan for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents PRP Group.

TABLE 2-6
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB1	SB1	SB1	SB2	SB2	SB2	SB2	SB3	SB3	SB3	SB3
Depth	2-4'	6-8'	12-14'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/22/96	4/22/96	4/22/96	4/22/96	4/22/96	4/26/96	4/22/96	4/10/96	4/10/96	4/10/96	4/10/96
Parameter											
Chloromethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Vinyl Chloride	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Bromomethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Chloroethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Acetone	13 U	12 U	12 U	12 U	11 U	12 UJ	11 UJ	12 U	12 U	12 U	11 U
1,1-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
trans-1,2-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Carbon Disulfide	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Methylene Chloride	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
1,1-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
1,2-Dichloroethene (total)	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
cis-1,2-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
2-Butanone	13 U	12 U	12 U	12 U	11 U	12 UJ	11 UJ	12 U	12 U	12 U	11 U
Chloroform	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
1,1,1-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	1 J
Carbon Tetrachloride	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
1,2-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Benzene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Trichloroethene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	2 J
1,2-Dichloropropane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Bromodichloromethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
4-Methyl-2-Pentanone	13 U	12 U	12 U	2 J	11 U	12 UJ	11 UJ	12 U	12 U	12 U	11 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Toluene	6 U	6 J	10 J	6 U	12	2 J	6 UJ	6 U	6 U	6 U	1 J
trans-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
1,1,2-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
2-Hexanone	13 U	12 U	12 U	12 U	11 U	12 UJ	11 UJ	12 U	12 U	12 U	11 U
Tetrachloroethene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Dibromochloromethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Chlorobenzene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Ethylbenzene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Total Xylenes	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	1 J
Styrene	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
Bromoform	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 U	6 U	6 U	6 U

U – Not Detected. The number represents the method detection limit.
J – Estimated Value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB4	SB4(dup)	SB4	SB4	SB4	SB5	SB5	SB5	SB5	SB6	SB6	SB6	SB6
Depth	2-4'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/9/96	4/9/96	4/9/96	4/9/96
Parameter													
Chloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Vinyl Chloride	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	4 J	6 U
Bromomethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Chloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Acetone	12 U	12 U	15	12 U	12 U	12 U	25	12 U	22 U	11 U	12 U	30 J	13
1,1-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
trans-1,2-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	2 J	6 U
Carbon Disulfide	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Methylene Chloride	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
1,1-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
1,2-Dichloroethene (total)	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	23 J	6 U
cis-1,2-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	21 J	6 U
2-Butanone	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	22 U	11 U	12 U	11 U	12 U
Chloroform	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	13 U	6 U	6 U	6 U	6 U
1,1,1-Trichloroethane	6 U	6 U	6 U	6 U	5 J	2 J	6 U	21	29	6 U	6 U	6 U	6 U
Carbon Tetrachloride	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
1,2-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Benzene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Trichloroethene	6 U	6 U	6 U	2 J	13	6 U	6 U	65	240	6 U	6 U	6 U	6 U
1,2-Dichloropropane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Bromodichloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
4-Methyl-2-Pentanone	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	22 U	11 U	12 U	11 U	12 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Toluene	6 U	6 U	6 U	6 U	1 J	6 U	6 U	6 U	11 U	6 U	6 U	2 J	6 U
trans-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
1,1,2-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
2-Hexanone	12 U	12 U	12 U	12 U	12 U	12 U	12 U	12 U	22 U	11 U	12 U	11 U	12 U
Tetrachloroethene	6 U	6 U	6 U	6 U	1 J	3 J	6 U	10	44	6 U	6 U	6 U	6 U
Dibromochloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Chlorobenzene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Ethylbenzene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Total Xylenes	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Styrene	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
Bromoform	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 U	6 U	11 U	6 U	6 U	6 U	6 U

U – Not Detected. The number represents the method detection limit.
J – Estimated Value
UJ – Estimated quantitation limit
* – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.

TABLE 2 - 8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB7	SB7	SB7	SB7	SB8	SB8	SB8	SB8	SB9	SB9	SB9	SB9
Depth	2–4'	6–8'	12–14'	18–20'	2–4'	6–8'	12–14'	18–20'	2–4'	6–8'	12–14'	18–20'
Date Collected	4/9/96	4/9/96	4/9/96	4/9/96	4/9/96	4/9/96	4/9/96	4/9/96	4/24/96	4/24/96	4/24/96	4/24/96
Parameter												
Chloromethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Vinyl Chloride	5 U	6 U	6 U	30	19 U	6 U	6 U	1 J	6 UJ	6 UJ	7 UJ	6 UJ
Bromomethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Chloroethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Acetone	11 U	12 U	13 U	58 U	38 U	12 U	12 U	28	9 J	14 J	20 J	6 UJ
1,1–Dichloroethene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
trans–1,2–Dichloroethene	5 U	6 U	6 U	21 J	19 U	6 U	6 U	1 J	6 UJ	6 UJ	7 UJ	6 UJ
Carbon Disulfide	5 U	6 U	6 U	29 U	19 U	6 U	6 U	12	6 UJ	6 UJ	7 UJ	39 J
Methylene Chloride	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
1,1–Dichloroethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
1,2–Dichloroethene (total)	5 U	6 U	6 U	640	62	1 J	3 J	17	6 UJ	6 UJ	7 UJ	6 UJ
cis–1,2–Dichloroethene	5 U	6 U	6 U	600	61	1 J	3 J	15	6 UJ	6 UJ	7 UJ	6 UJ
2–Butanone	11 U	12 U	13 U	58 U	38 U	12 U	12 U	13 U	12 UJ	12 UJ	14 UJ	12 UJ
Chloroform	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
1,1,1–Trichloroethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	2 J	6 UJ
Carbon Tetrachloride	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
1,2–Dichloroethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Benzene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Trichloroethene	5 U	1 J	6 U	29 U	74	1 J	5 J	2 J	6 UJ	6 UJ	26 J	6 UJ
1,2–Dichloropropane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Bromodichloromethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
4–Methyl–2–Pentanone	11 U	12 U	13 U	58 U	38 U	12 U	12 U	13 U	12 UJ	12 UJ	14 UJ	12 UJ
cis–1,3–Dichloropropene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Toluene	5 U	6 U	6 U	29 U	19 U	6 U	2 J	4 J	6 UJ	6 UJ	7 UJ	6 UJ
trans–1,3–Dichloropropene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
1,1,2–Trichloroethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
2–Hexanone	11 U	12 U	13 U	58 U	38 U	12 U	12 U	13 U	12 UJ	12 UJ	14 UJ	12 UJ
Tetrachloroethene	5 U	1 J	6 U	29 U	240	1 J	2 J	6 U	6 UJ	6 UJ	10 J	6 UJ
Dibromochloromethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Chlorobenzene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Ethylbenzene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Total Xylenes	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Styrene	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
Bromoform	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ
1,1,2,2–Tetrachloroethane	5 U	6 U	6 U	29 U	19 U	6 U	6 U	6 U	6 UJ	6 UJ	7 UJ	6 UJ

U – Not Detected. The number represents the method detection limit.
J – Estimated Value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB10	SB10	SB10	SB10	SB11	SB11	SB11	SB11	SB12	SB12	SB12	SB12
Depth	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/9/96	4/9/96	4/9/96	4/9/96	4/18/96	4/18/96	4/18/96	4/9/96	4/9/96	4/9/96	4/9/96	4/9/96
Parameter												
Chloromethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Vinyl Chloride	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Bromomethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Chloroethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Acetone	11 U	12 U	29	61 J	12 U	12 U	84	1500 UJ	12 U	13 U	11 U	42
1,1-Dichloroethene	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
trans-1,2-Dichloroethene	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Carbon Disulfide	6 U	6 U	6 U	24 J	6 U	6 U	7 J	780 UJ	6 U	6 U	6 U	1 J
Methylene Chloride	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
1,1-Dichloroethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
1,2-Dichloroethene (total)	6 U	6 U	2 J	6 UJ	6 U	6 U	65	4800 J	6 U	6 U	3 J	6 U
cis-1,2-Dichloroethene	6 U	6 U	2 J	6 UJ	6 U	6 U	64	4600 J	6 U	6 U	3 J	6 U
2-Butanone	11 U	12 U	12 U	12 UJ	12 U	12 U	64 U	1500 UJ	12 U	13 U	11 U	12 U
Chloroform	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
1,1,1-Trichloroethane	6 U	6 U	17	6 UJ	6 U	6 U	15 J	780 UJ	6 U	6 U	30	6 U
Carbon Tetrachloride	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
1,2-Dichloroethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Benzene	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Trichloroethene	6 U	6 U	65	6 UJ	2 J	6 U	400	780 UJ	6 U	6 U	89	6 U
1,2-Dichloropropane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Bromodichloromethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	1500 UJ	6 U	6 U	6 U	6 U
4-Methyl-2-Pentanone	11 U	12 U	12 UJ	12 UJ	12 U	12 U	64 U	780 UJ	12 U	13 U	11 U	12 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Toluene	6 U	6 U	6 U	6 UJ	6 U	6 U	26 J	180 J	6 U	2 J	6 U	2 J
trans-1,3-Dichloropropene	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
1,1,2-Trichloroethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	1500 UJ	6 U	6 U	6 U	6 U
2-Hexanone	11 U	12 U	12 UJ	12 UJ	12 U	12 U	64 U	780 UJ	12 U	13 U	11 U	12 U
Tetrachloroethene	6 U	6 U	6 J	6 UJ	20	6 U	1100	780 UJ	6 U	6 U	73	6 U
Dibromochloromethane	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Chlorobenzene	6 U	6 U	6 U	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Ethylbenzene	6 U	6 U	6 UJ	6 UJ	6 U	6 U	32 U	490 J	6 U	6 U	6 U	6 U
Total Xylenes	6 U	6 U	6 UJ	6 UJ	6 U	6 U	32 U	840 J	6 U	6 U	6 U	6 U
Styrene	6 U	6 U	6 UJ	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
Bromoform	6 U	6 U	6 UJ	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 UJ	6 UJ	6 U	6 U	32 U	780 UJ	6 U	6 U	6 U	6 U

U – Not Detected. The number represents the method detection limit.
J – Estimated Value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB13	SB13	SB13	SB13	SB14	SB14	SB14	SB15	SB15	SB15	SB15
Depth	2-4'	6-8'	14-16'	16-17'	2-4'	6-8'	12-14'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/10/96	4/10/96	4/10/96	4/10/96	4/24/96	4/24/96	4/24/96	4/24/96	4/24/96	4/24/96	4/24/96
Parameter											
Chloromethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Vinyl Chloride	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Bromomethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Chloroethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Acetone	12 U	12 U	15	14	12 UJ	27 J	11 UJ	11 UJ	26 J	57 UJ	27 U
1,1-Dichloroethene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
trans-1,2-Dichloroethene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	2 J	27 UJ	28 UJ	13 U
Carbon Disulfide	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Methylene Chloride	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
1,1-Dichloroethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	5 J	27 UJ	28 UJ	13 U
1,2-Dichloroethene (total)	6 U	6 U	6 U	5 U	6 UJ	6 UJ	1 J	76 J	67 J	6 J	14
cis-1,2-Dichloroethene	12 U	12 U	11 U	5 U	6 UJ	6 UJ	1 J	72 J	65 J	6 J	14
2-Butanone	6 U	6 U	6 U	11 U	12 UJ	12 UJ	11 UJ	11 UJ	55 UJ	57 UJ	27 U
Chloroform	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
1,1,1-Trichloroethane	6 U	6 U	6 U	2 J	6 UJ	6 UJ	18 J	14 J	230 J	43 J	140
Carbon Tetrachloride	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
1,2-Dichloroethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Benzene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Trichloroethene	6 U	6 U	1 J	5 U	6 UJ	6 UJ	39 J	21 J	9300 J	800 J	8300 J
1,2-Dichloropropane	12 U	12 U	11 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Bromodichloromethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
4-Methyl-2-*Pentanone*	6 U	6 U	6 U	11 U	12 UJ	12 UJ	11 UJ	11 UJ	55 UJ	57 UJ	27 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Toluene	6 U	6 U	1 J	2 J	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
trans-1,3-Dichloropropene	12 U	12 U	11 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
1,1,2-Trichloroethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
2-Hexanone	6 U	6 U	6 U	11 U	12 UJ	12 UJ	11 UJ	11 UJ	55 UJ	57 UJ	27 U
Tetrachloroethene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	3 J	10 J	460 J	260 J	5800 J
Dibromochloromethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Chlorobenzene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Ethylbenzene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Total Xylenes	6 U	6 U	6 U	2 J	6 UJ	6 UJ	6 UJ	6 UJ	8 J	28 UJ	13 U
Styrene	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
Bromoform	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 U	5 U	6 UJ	6 UJ	6 UJ	6 UJ	27 UJ	28 UJ	13 U

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-6
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB16	SB16(dup)	SB16	SB16	SB16	SB17	SB17	SB17	SB17	SB18	SB18(dup)	SB18	SB18	SB18
Depth	2-4'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/26/96	4/26/96	4/26/96	4/26/96	4/26/96	4/18/96	4/18/96	4/18/96	4/18/96	4/17/96	4/17/96	4/17/96	4/17/96	4/17/96
Parameter														
Chloromethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Vinyl Chloride	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Bromomethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Chloroethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Acetone	12 U	12 U	11 UJ	14 U	14 UJ	12 U	17 U	58 U	55 U	13 U	13 U	13 U	12 U	22 U
1,1-Dichloroethene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
trans-1,2-Dichloroethene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Carbon Disulfide	6 U	6 U	6 UJ	7 U	2 J	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Methylene Chloride	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
1,1-Dichloroethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
1,2-Dichloroethene (total)	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
cis-1,2-Dichloroethene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
2-Butanone	12 U	12 U	11 UJ	14 U	14 UJ	12 U	17 U	58 U	55 U	13 U	13 U	13 U	12 U	22 U
Chloroform	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
1,1,1-Trichloroethane	6 U	6 U	4 J	13	5 J	1 J	96	200	53	6 U	6 U	6 U	3 J	320 J
Carbon Tetrachloride	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
1,2-Dichloroethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Benzene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Trichloroethene	2 J	2 J	36 J	120	74 J	6 U	330	990	120	6 U	6 U	6 U	4 J	92 J
1,2-Dichloropropane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Bromodichloromethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
4-Methyl-2-Pentanone	12 U	12 U	11 UJ	14 U	14 UJ	12 U	17 U	58 U	55 U	13 U	13 U	13 U	12 U	22 U
cis-1,3-Dichloropropene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Toluene	6 U	6 U	14 UJ	20	20 J	6 U	2 J	29 U	14 J	6 U	6 U	6 U	7	8 J
trans-1,3-Dichloropropene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
1,1,2-Trichloroethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
2-Hexanone	12 U	12 U	11 UJ	14 U	14 UJ	12 U	17 U	58 U	55 U	13 U	13 U	13 U	12 U	22 U
Tetrachloroethene	2 J	4 J	51 J	170	190 J	2 J	50	550	1200 J	6 U	6 U	6 U	6 U	8 J
Dibromochloromethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Chlorobenzene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Ethylbenzene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Total Xylenes	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Styrene	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
Bromoform	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 UJ	7 U	7 UJ	6 U	8 U	29 U	27 U	6 U	6 U	6 U	6 U	11 U

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-6
SOIL SAMPLING RESULTS SUMMARY - 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB19	SB19(Dup)	SB19	SB19(Dup)	SB19	SB19	SB20	SB20	SB20	SB20	SB21	SB21	SB21	SB21
Depth	2-4'	2-4'	6-8'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20
Date Collected	4/18/96	4/18/96	4/18/96	4/18/96	4/24/96	4/24/96	4/25/96	4/25/96	4/25/96	4/25/96	4/26/96	4/26/96	4/22/96	4/26/96
Parameter														
Chloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Vinyl Chloride	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Bromomethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Chloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Acetone	12 U	12 U	13 U	13 U	12 U	14 U	12 UJ	12 UJ	73 UJ	11 UJ	12 U	12 U	12 U	11 U
1,1-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
trans-1,2-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Carbon Disulfide	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Methylene Chloride	6 U	6 U	6 U	6 U	6 U	1 J	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	1 J
1,1-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
1,2-Dichloroethene (total)	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
cis-1,2-Dichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
2-Butanone	12 U	12 U	13 U	13 U	12 U	12 U	12 UJ	12 UJ	13 UJ	11 UJ	12 U	12 U	12 U	11 U
Chloroform	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
1,1,1-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	140 J	22 J	6 U	3 J	36	8
Carbon Tetrachloride	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
1,2-Dichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Benzene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Trichloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	10 J	4 J	6 U	6 U	13	21
1,2-Dichloropropane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Bromodichloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
4-Methyl-2-Pentanone	12 U	12 U	13 U	13 U	12 U	12 U	12 UJ	12 UJ	13 UJ	11 UJ	12 U	12 U	12 U	11 U
cis-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Toluene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	8 J	6 U	11 U	15	19
trans-1,3-Dichloropropene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
1,1,2-Trichloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
2-Hexanone	12 U	12 U	13 U	13 U	12 U	12 U	12 UJ	12 UJ	12 UJ	11 UJ	12 U	12 U	12 U	11 U
Tetrachloroethene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	13	100
Dibromochloromethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Chlorobenzene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Ethylbenzene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Total Xylenes	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Styrene	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
Bromoform	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U
1,1,2,2-Tetrachloroethane	6 U	6 U	6 U	6 U	6 U	6 U	6 UJ	6 UJ	6 UJ	5 UJ	6 U	6 U	6 U	5 U

U - Not Detected. The number represents the method detection limit.
J - Estimated value
UJ - Estimated quantitation limit
*** - Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB22	SB22	SB22	SB22	SB23	SB23	SB23	SB23	SB24	SB24	SB24	SB24
Depth	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/26/96	4/26/96	4/26/96	4/26/96	4/15/96	4/15/96	4/15/96	4/15/96	4/12/96	4/12/96	4/12/96	4/12/96
Parameter												
Chloromethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Vinyl Chloride	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Bromomethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Chloroethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Acetone	12 U	46 U	18 UJ	53 UJ	12 U	11 U	11 U	11 U	12 U	12 U	11 U	11 U
1,1-Dichloroethene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
trans-1,2-Dichloroethene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Carbon Disulfide	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Methylene Chloride	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
1,1-Dichloroethane	6 U	23 U	9 UJ	11 J	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
1,2-Dichloroethene (total)	6 U	5 J	5 J	49 J	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
cis-1,2-Dichloroethene	6 U	5 J	5 J	47 J	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
2-Butanone	12 U	46 U	18 UJ	53 UJ	12 U	11 U	11 U	11 U	12 U	12 U	11 U	11 U
Chloroform	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
1,1,1-Trichloroethane	6 U	190	44 J	490 J	6 U	6 U	2 J	17	6 U	4 J	6 U	9
Carbon Tetrachloride	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
1,2-Dichloroethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Benzene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Trichloroethene	1 J	910	360 J	810 J	6 U	6 U	5 U	6 U	6 U	6 U	6 U	6
1,2-Dichloropropane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Bromodichloromethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
4-Methyl-2-Pentanone	12 U	46 U	18 UJ	53 UJ	12 U	11 U	11 U	11 U	12 U	12 U	11 U	11 U
cis-1,3-Dichloropropene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Toluene	6 U	44	100 J	250 J	6 U	6 U	5 J	57	6 U	6 U	6 U	2 J
trans-1,3-Dichloropropene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
1,1,2-Trichloroethane	6 U	23 U	3 J	12 J	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
2-Hexanone	12 U	46 U	18 UJ	53 UJ	12 U	11 U	11 U	11 U	12 U	12 U	11 U	11 U
Tetrachloroethene	10	2000 J	930 J	5600 J	6 U	6 U	5 U	6 U	6 U	6 U	6 U	3 J
Dibromochloromethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Chlorobenzene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Ethylbenzene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Total Xylenes	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Styrene	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
Bromoform	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U
1,1,2,2-Tetrachloroethane	6 U	23 U	9 UJ	26 UJ	6 U	6 U	5 U	6 U	6 U	6 U	6 U	5 U

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB25	SB25	SB25	SB26	SB26	SB26	SB26	SB27	SB27	SB27	SB27	SB27	SB27
Depth	2-4'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	26-28'	28-30'
Date Collected	4/10/96	4/10/96	4/22/96	4/17/96	4/17/96	4/17/96	4/17/96	4/16/96	4/16/96	4/16/96	4/16/96	4/16/96	4/16/96
Parameter													
Chloromethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Vinyl Chloride	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Bromomethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Chloroethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Acetone	11 U	56 U	60 U	56 J	22 U	54 U	1300 U	21	1400 U	56 U	1300 U	1300 U	1400 U
1,1-Dichloroethene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 UJ	28 U	690 U	690 U	710 U
trans-1,2-Dichloroethene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Carbon Disulfide	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Methylene Chloride	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
1,1-Dichloroethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
1,2-Dichloroethene (total)	6 U	8 J	30 U	8 J	11 U	27 U	670 U	2 J	210 J	10 J	140 J	690 U	710 U
cis-1,2-Dichloroethene	6 U	8 J	30 U	8 J	11 U	27 U	670 U	2 J	200 J	9 J	140 J	690 U	710 U
2-Butanone	11 U	56 U	60 U	58 U	22 U	54 U	1300 U	12 U	1400 U	56 U	1300 U	1300 U	1400 U
Chloroform	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
1,1,1-Trichloroethane	1 J	83	67	93	14	10 J	390 J	3 J	1700	86	630 J	570 J	710 U
Carbon Tetrachloride	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
1,2-Dichloroethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Benzene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Trichloroethene	20	1400 J	940	600 J	200	130	3000	26	11000	1100	5300	1400	710 U
1,2-Dichloropropane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Bromodichloromethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
4-Methyl-2-Pentanone	11 U	56 U	60 U	58 U	22 U	54 U	1300 U	12 U	1400 U	56 U	1300 U	1300 U	1400 U
cis-1,3-Dichloropropene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Toluene	6 U	28 U	36	47	210	45	250 J	9	340 J	12 J	690 U	690 U	710 U
trans-1,3-Dichloropropene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
1,1,2-Trichloroethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	10 J	690 U	690 U	710 U
2-Hexanone	11 U	56 U	60 U	58 U	22 U	54 U	1300 U	12 U	1400 U	56 U	1300 U	1300 U	1400 U
Tetrachloroethene	3 J	50	430	1200 J	920 J	1000 J	18000	15	7000	540 J	5900	9800	220 J
Dibromochloromethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Chlorobenzene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Ethylbenzene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	3600
Total Xylenes	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	44000
Styrene	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
Bromoform	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U
1,1,2,2-Tetrachloroethane	6 U	28 U	30 U	29 U	11 U	27 U	670 U	6 U	710 U	28 U	690 U	690 U	710 U

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
VOLATILE ORGANIC COMPOUNDS (µg/kg)

Sample Number	SB28	SB28	SB28	SB28	SB29	SB29	SB29	SB29	SB30	SB30	SB30	SB30
Depth	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected	4/25/96	4/25/96	4/25/96	4/25/96	4/24/96	4/24/96	4/24/96	4/24/96	4/25/96	4/25/96	4/25/96	4/25/96
Parameter												
Chloromethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Vinyl Chloride	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Bromomethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Chloroethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Acetone	12 U	19 UJ	48 UJ	28 UJ	12 UJ	13 UJ	8 J	74 J	11 UJ	25 UJ	23 UJ	13 UJ
1,1-Dichloroethene	6 U	6 UJ	7 J	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
trans-1,2-Dichloroethene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Carbon Disulfide	6 U	3 J	260 J	220 J	6 UJ	6 UJ	7 UJ	700 J	5 UJ	6 UJ	6 UJ	2 J
Methylene Chloride	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	2 J	6 UJ	6 UJ	6 UJ
1,1-Dichloroethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,2-Dichloroethene (total)	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	5 J	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
cis-1,2-Dichloroethene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	5 J	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
2-Butanone	12 U	13 UJ	13 UJ	13 UJ	12 UJ	13 UJ	13 UJ	14 J	11 UJ	13 UJ	13 UJ	13 UJ
Chloroform	6 U	2 J	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1,1-Trichloroethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Carbon Tetrachloride	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,2-Dichloroethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Benzene	6 U	6 UJ	14 J	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Trichloroethene	6 U	6 UJ	20 J	7 UJ	6 UJ	3 J	7 UJ	7 UJ	5 UJ	4 J	8 J	6 UJ
1,2-Dichloropropane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Bromodichloromethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
4-Methyl-2-Pentanone	12 U	13 UJ	13 UJ	13 UJ	12 UJ	13 UJ	13 UJ	14 UJ	11 UJ	13 UJ	13 UJ	13 UJ
cis-1,3-Dichloropropene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Toluene	5 J	6 UJ	23 J	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	44 J	4 J	9 UJ	6 UJ
trans-1,3-Dichloropropene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1,2-Trichloroethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
2-Hexanone	12 U	13 UJ	13 UJ	13 UJ	12 UJ	13 UJ	13 UJ	14 UJ	11 UJ	13 UJ	13 UJ	13 UJ
Tetrachloroethene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	5 J	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Dibromochloromethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Chlorobenzene	6 U	6 UJ	27 J	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	5 J	6 UJ
Ethylbenzene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Total Xylenes	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Styrene	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
Bromoform	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ
1,1,2,2-Tetrachloroethane	6 U	6 UJ	6 UJ	7 UJ	6 UJ	6 UJ	7 UJ	7 UJ	5 UJ	6 UJ	6 UJ	6 UJ

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
*** – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.**

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY - 1996*
METALS (µg/kg)

Sample ID:	SB-3	SB-3	SB-3	SB-3	SB-5	SB-5	SB-5	SB-5	SB-5	SB-11	SB-11	SB-11	SB-11
Depth	2-4'	6-8'	12-14'	18-20'	2-4'	2-4' Field Dup	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected:	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/18/96	4/18/96	4/18/96	4/18/96
Aluminum	13900 J	11300 J	12400 J	6540 J	15400	17500	13100	4250	4140	18700	7850	12600	6720
Antimony	0.47 J	0.47 J	0.46	2	1.2 J	0.97 J	1 J	0.67 J	1.5 J	0.73 J	0.27 J	7.3 J	0.35 J
Arsenic	16.9	24.5	18.1 J	116 J	28 J	28.3 J	23.9 J	21.9 J	35.3 J	16.1	13.9	185	34.2
Barium	62.8	62.4	59.4 J	52.1 J	107	121	107	57.2	55.3	95	40	61.1	86.4
Beryllium	0.13	0.28	0.29	0.17	0.95 J	1.1 J	0.9 J	0.38 J	0.28 J	0.74	0.46	0.71	0.39
Cadmium	0.06	0.2	0.73 J	1.9 J	0.84	0.78	0.65	0.81	0.85	0.04 U	0.32	1.8	0.38
Calcium	1400 J	1330 J	1780 J	51600 J	9330	8550	6590	84100	107000	2290	659	3400	92500
Chromium	16.8 J	14.8 J	18.2 J	10.2 J	19.9	22.1	16.8	7.5	8.6	20.8	10.4	20	9.4
Cobalt	9.3	8.1	8.9 J	11.5 J	13.8	14.1	12.2	5.8	7.8	11.9	6.7	26.2	6.3
Copper	24	25.8	25.1	34.1	38.5	37.4	33.1	20.5	19.4	23	23.2	46.2	16.9
Iron	27500 J	26600 J	28400 J	59300 J	36600 J	38100 J	31800 J	24300 J	38400 J	28500	22300	112000	20600
Lead	14.7 J	14.0 J	16.1 J	64.3 J	52.4 J	50.1 J	41.5 J	15.1 J	51 J	25.6 J	11.5 J	122 J	19.7 J
Magnesium	2510 J	2100 J	2830 J	23600 J	6700	6350	4620	30500	25000	2860	1490	2410	42500
Manganese	482 J	565 J	474 J	489 J	862	889	858	1260	569	696 J	172 J	1800 J	372 J
Mercury	0.11 U	0.11 U	0.10 U	0.07 U	0.1	0.11	0.10 U	0.09 U	0.09 U	0.09 U	0.10 U	0.24	0.06 U
Nickel	20.3 J	22.7 J	34.1 J	33.3 J	33.5 J	36.1 J	30.2 J	19 J	25.3 J	22.7	19.5	76	16.7
Potassium	1830	1410	2620 J	1810 J	2830 UJ	3260 UJ	2320 UJ	1490 UJ	1220 UJ	2210	1260	2480	2200
Selenium	1.4 J	1.2 J	1.3	2.3	0.83 J	0.82 J	0.62 J	0.36 UJ	2.3 J	0.61 J	0.41 UJ	1.2 J	0.38 UJ
Silver	0.13 U	0.13 U	0.12 U	0.12 U	0.17 U	0.16 U	0.15 U	0.14 U	0.16	0.16 U	0.16 U	0.25	0.3
Sodium	20.6 U	20.2 U	74.3 U	41.5 U	148	145	116	165	70.7	26.3 U	26.4 U	93.3	116
Thallium	0.64	0.58	1.2	1.5	0.60 UJ	0.56 UJ	0.56 UJ	0.49 UJ	0.53 UJ	0.57 U	0.57 U	0.61 U	0.52 U
Vanadium	40.1	32.6	50 J	30.5 J	49.7 J	56.6 J	41.3 J	21.7 J	22.5 J	49.3	24	55	24.9
Zinc	77 J	80.8 J	126 J	167 J	149 J	150 J	116 J	109 J	111 J	76.8	82.5	256	57.5

U - Not Detected. The number represents the method detection limit.
J - Estimated value
UJ - Estimated quantitation limit
* - Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Sire PRP Group.

TABLE 2-8
SOILS SAMPLING RESULTS SUMMARY -- 1996*
SEMIVOLATILE ORGANIC COMPOUNDS

Sample Number:	SB-3	SB-3	SB-3	SB-3	SB-3	SB-5	SB-5	SB-5	SB-5	SB-5	SB-11	SB-11
Depth:	2-4'	6-8'	6-8' Field Dup	12-14'	18-20'	2-4'	6-8'	6-8' Field Dup	12-14'	18-20'	2-4'	2-4' Field Dup
Date Collected:	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/10/96	4/18/96	4/18/96
Phenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Bis(2-Chloroethyl)ether	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2-Chlorophenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
1,3-Dichlorobenzene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
1,4-Dichlorobenzene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Benzyl Alcohol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
1,2-Dichlorobenzene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2-Methylphenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Bis(2-Chloroisopropyl)ether	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
4-Methylphenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
N-Nitroso-di-n-propylamine	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Hexachloroethane	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Nitrobenzene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Isophorone	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2-Nitrophenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2,4-Dimethylphenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Benzoic Acid	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Bis(2-Chloroethoxy)methane	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2,4-Dichlorophenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
1,2,4-Trichlorobenzene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Naphthalene	410 U	390 U	380 U	390 U	360 U	39 J	390 U	390 U	360 U	370 U	400 U	420 U
4-Chloroaniline	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Hexachlorobutadiene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
4-Chloro-3-Methylphenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2-Methylnaphthalene	410 U	390 U	380 U	390 U	360 U	41 J	390 U	390 U	360 U	370 U	400 U	420 U
Hexachlorocyclopentadiene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2,4,6-Trichlorophenol	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2,4,5-Trichlorophenol	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
2-Chloronaphthalene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2-Nitroaniline	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
Dimethylphthalate	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Acenaphthylene	410 U	390 U	380 U	390 U	360 U	66 J	390 U	390 U	360 U	370 U	400 U	420 U
2,6-Dinitrotoluene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
3-Nitroaniline	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
Acenaphthene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
2,4-Dinitrophenol	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
4-Nitrophenol	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
Dibenzofuran	410 U	390 U	380 U	390 U	360 U	24 J	390 U	390 U	360 U	370 U	400 U	420 U
2,4-Dinitrotoluene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Diethylphthalate	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
4-Chlorophenyl-phenylether	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Fluorene	410 U	390 U	380 U	390 U	360 U	42 J	390 U	390 U	360 U	370 U	400 U	420 U
4-Nitroaniline	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
4,6-Dinitro-2-methylphenol	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
N-Nitrosodiphenylamine	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
4-Bromophenyl-phenylether	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Hexachlorobenzene	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Pentachlorophenol	2000 U	1900 U	1800 U	1900 U	1800 U	1000 U	950 U	950 U	870 U	900 U	1900 U	1000 U
Phenanthrene	410 U	390 U	380 U	390 U	360 U	340 J	390 U	390 U	360 U	370 U	400 U	420 U
Anthracene	410 U	390 U	380 U	390 U	360 U	55 J	390 U	390 U	360 U	370 U	400 U	420 U
Carbazole	410 U	390 U	380 U	390 U	360 U	33 J	390 U	390 U	360 U	370 U	400 U	420 U
Di-n-butylphthalate	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Fluoranthene	410 U	390 U	380 U	390 U	360 U	760	390 U	390 U	360 U	370 U	400 U	420 U
Pyrene	410 U	390 U	380 U	390 U	360 U	530	390 U	390 U	360 U	370 U	400 U	420 U
Butylbenzylphalate	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
3,3-Dichlorobenzidine	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Benzo(a)anthracene	410 U	390 U	380 U	390 U	360 U	310 J	390 U	390 U	360 U	370 U	400 U	420 U
Chrysene	410 U	390 U	380 U	390 U	360 U	370 J	390 U	390 U	360 U	370 U	400 U	420 U
Bis(2-Ethylhexyl)phthalate	410 U	390 U	380 U	390 U	690	52 J	390 U	390 U	360 U	370 U	400 U	420 U
Di-n-octylphthalate	410 U	390 U	380 U	390 U	360 U	430 U	390 U	390 U	360 U	370 U	400 U	420 U
Benzo(b)fluoranthene	410 U	390 U	380 U	390 U	360 U	290 J	390 U	390 U	360 U	370 U	400 U	420 U
Benzo(k)fluoranthene	410 U	390 U	380 U	390 U	360 U	310 J	390 U	390 U	360 U	370 U	400 U	420 U
Benzo(a)pyrene	410 U	390 U	380 U	390 U	360 U	330 J	390 U	390 U	360 U	370 U	400 U	420 U
Indeno(1,2,3-cd)pyrene	410 U	390 U	380 U	390 U	360 U	210 J	390 U	390 U	360 U	370 U	400 U	420 U
Dibenz(a,h)anthracene	410 U	390 U	380 U	390 U	360 U	110 J	390 U	390 U	360 U	370 U	400 U	420 U
Benzo(g,h,i)perylene	410 U	390 U	380 U	390 U	360 U	270 J	390 U	390 U	360 U	370 U	400 U	420 U

J - Estimated Value
U - Not Detected. The number represents the method detection limit.
UJ - Estimated Quantitation Limit
* -- Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.

TABLE 2-8
SOILS SAMPLING RESULTS SUMMARY – 1996*
SEMIVOLATILE ORGANIC COMPOUNDS

Sample Number:	SB-11	SB-11	SB-14	SB-14	SB-14	SB-16	SB-16	SB-16	SB-16	SB-25	SB-25	SB-25	SB-25
Depth:	6-8'	12-14'	2-4'	6-8'	12-14'	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected:	4/18/96	4/18/96	4/24/96	4/24/96	4/24/96	4/26/96	4/26/96	4/26/96	4/26/96	4/22/96	4/22/96	4/22/96	4/22/96
Phenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Bis(2-Chloroethyl)ether	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2-Chlorophenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
1,3-Dichlorobenzene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
1,4-Dichlorobenzene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Benzyl Alcohol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
1,2-Dichlorobenzene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2-Methylphenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Bis(2-Chloroisopropyl)ether	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
4-Methylphenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
N-Nitroso-di-n-propylamine	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Hexachloroethane	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Nitrobenzene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Isophorone	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2-Nitrophenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,4-Dimethylphenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Benzoic Acid	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Bis(2-Chloroethoxy)methane	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,4-Dichlorophenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
1,2,4-Trichlorobenzene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Naphthalene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
4-Chloroaniline	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Hexachlorobutadiene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
4-Chloro-3-Methylphenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2-Methylnaphthalene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Hexachlorocyclopentadiene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,4,6-Trichlorophenol	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,4,5-Trichlorophenol	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
2-Chloronaphthalene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2-Nitroaniline	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
Dimethylphthalate	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Acenaphthylene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,6-Dinitrotoluene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
3-Nitroaniline	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
Acenaphthene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,4-Dinitrophenol	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
4-Nitrophenol	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
Dibenzofuran	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
2,4-Dinitrotoluene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Diethylphthalate	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
4-Chlorophenyl-phenylether	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Fluorene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
4-Nitroaniline	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
4,6-Dinitro-2-methylphenol	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	1800 U
N-Nitrosodiphenylamine	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
4-Bromophenyl-phenylether	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Hexachlorobenzene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Pentachlorophenol	1100 U	2200 U	1900 U	1900 U	1700 U	1900 U	1900 U	1900 U	1800 U	1900 U	1800 U	1800 U	56 J
Phenanthrene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Anthracene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Carbazole	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Di-n-butylphthalate	400 U	440 U	770 U	51 J	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Fluoranthene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Pyrene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Butylbenzylphalate	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
3,3-Dichlorobenzidine	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Benzo(a)anthracene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Chrysene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Bis(2-Ethylhexyl)phthalate	400 U	440 U	770 U	780 U	720 U	780 U	780 U	40 J	37 J	200 J	200 J	380 U	740 U
Di-n-octylphthalate	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Benzo(b)fluoranthene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	99 J	370 U	380 U	740 U
Benzo(k)fluoranthene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Benzo(a)pyrene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Indeno(1,2,3-cd)pyrene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Dibenz(a,h)anthracene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	390 U	370 U	380 U	740 U
Benzo(g,h,i)perylene	400 U	440 U	770 U	780 U	720 U	780 U	780 U	780 U	720 U	120 J	370 U	380 U	740 U

J – Estimated
U – Not Detected. The number represents the method detection limit.
UJ – Estimated Quantitation Limit
* – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.

TABLE 2-8
SOILS SAMPLING RESULTS SUMMARY - 1996*
SEMIVOLATILE ORGANIC COMPOUNDS

Sample Number:	SB-26 2-4'	SB-26 6-8'	SB-26 12-14'	SB-26 18-20'	SB-27 2-4'	SB-27 6-8'	SB-27 12-14'	SB-27 18-20'
Date Collected:	4/17/96	4/17/96	4/17/96	4/17/96	4/16/96	4/16/96	4/16/96	4/16/96
Phenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Bis(2-Chloroethyl)ether	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2-Chlorophenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
1,3-Dichlorobenzene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
1,4-Dichlorobenzene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzyl Alcohol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
1,2-Dichlorobenzene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2-Methylphenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Bis(2-Chloroisopropyl)ether	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
4-Methylphenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
N-Nitroso-di-n-propylamine	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Hexachloroethane	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Nitrobenzene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Isophorone	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2-Nitrophenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,4-Dimethylphenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzoic Acid	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Bis(2-Chloroethoxy)methane	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,4-Dichlorophenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
1,2,4-Trichlorobenzene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Naphthalene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
4-Chloroaniline	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Hexachlorobutadiene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
4-Chloro-3-Methylphenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2-Methylnaphthalene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Hexachlorocyclopentadiene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,4,6-Trichlorophenol	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,4,5-Trichlorophenol	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
2-Chloronaphthalene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2-Nitroaniline	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
Dimethylphthalate	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Acenaphthylene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,6-Dinitrotoluene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
3-Nitroaniline	3700 U	1800 U	360 U	350 U	1800 U	400 U	1800 U	1800 U
Acenaphthene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,4-Dinitrophenol	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
4-Nitrophenol	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
Dibenzofuran	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
2,4-Dinitrotoluene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Diethylphthalate	8300	380 U	360 U	350 U	370 U	400 U	370 U	380 U
4-Chlorophenyl-phenylether	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Fluorene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
4-Nitroaniline	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
4,6-Dinitro-2-methylphenol	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
N-Nitrosodiphenylamine	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
4-Bromophenyl-phenylether	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Hexachlorobenzene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Pentachlorophenol	3700 U	1800 U	1700 U	1700 U	1800 U	1900 U	1800 U	1800 U
Phenanthrene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Anthracene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Carbazole	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Di-n-butylphthalate	760 U	380 U	360 U	350 U	370 U	120 J	370 U	84 J
Fluoranthene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Pyrene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Butylbenzylphalate	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
3,3-Dichlorobenzidine	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzo(a)anthracene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Chrysene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Bis(2-Ethylhexyl)phthalate	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Di-n-octylphthalate	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzo(b)fluoranthene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzo(k)fluoranthene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzo(a)pyrene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Indeno(1,2,3-cd)pyrene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Dibenz(a,h)anthracene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U
Benzo(g,h,i)perylene	760 U	380 U	360 U	350 U	370 U	400 U	370 U	380 U

J - Estimated
U - Not Detected. The number represents the method detection limit.
UJ - Estimated Quantitation Limit
* - Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Site PRP Group.

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
METALS (µg/kg)

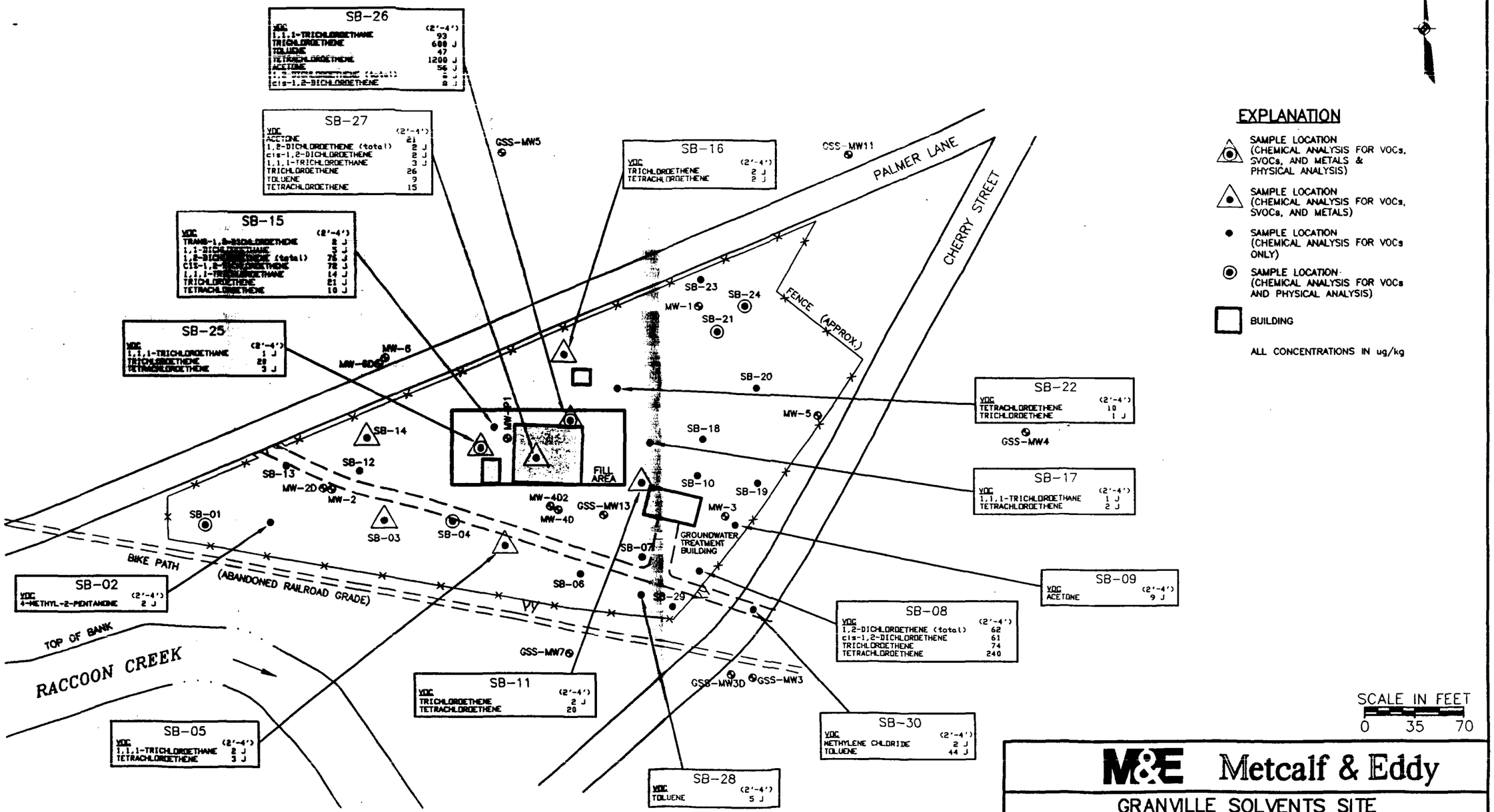
Sample ID:	SB-14	SB-14	SB-14	SB-14	SB-16	SB-16	SB-16	SB-16	SB-16	SB-25	SB-25	SB-25	SB-25
Depth	2-4'	6-8'	12-14'	12-14' Field Dup	2-4'	6-8'	6-8' Field Dup	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected:	4/24/96	4/24/96	4/24/96	4/24/96	4/26/96	4/26/96	4/26/96	4/26/96	4/26/96	4/10/96	4/10/96	4/10/96	4/10/96
Aluminum	8700	6390	5290	4110	9280	4730 J	4700 J	3140 J	2760 J	10100 J	6710 J	7660 J	4350
Antimony	0.53 J	2.0 J	0.53 J	7.3 J	0.33 J	0.29 J	0.26 J	0.48 J	0.23 J	0.47 J	0.91 J	0.47 J	0.35 J
Arsenic	27.9 J	182 J	33 J	149 J	19.9	9.7	8.5	20.9	7.7	16.2	30.5	16.5	10.9 J
Barium	54.6	86.7	73.9	62.5	39.5	33.7	34.1	32	32.6	118	41.1	73.1	77
Beryllium	0.64	0.55	0.45 J	0.35 J	0.56	0.33	0.32 J	0.26 J	0.22 J	0.3	0.17	0.32	0.29
Cadmium	0.17	0.69	0.49	0.25	0.18	0.27	0.27	0.43	0.24	0.2	1.1	0.9	0.58
Calcium	1040	3000	70900 J	31200 J	1070	22300	23900	43200	65600	1350 J	44500 J	34200 J	109000
Chromium	12.2	10.1	8.8 J	6.3 J	13 J	6.7 J	7.0 J	5.7 J	4.6 J	13.5 J	10.3 J	10.9 J	7.3
Cobalt	10.1	14.7	9.5	7.8	9.7	4.3	5.2	4	3.1	10.5	7.9	11.6	6.7
Copper	29.1	41	29.7 J	45.1 J	24.4 J	14.4	12.5	12.9	9.1	16	22.7	22.9	16.5
Iron	32000 J	90000 J	36800 J	33600 J	27800	14000	13300	26300	8940	23400 J	29100 J	23100 J	18100 J
Lead	21.3 J	117 J	18.6 J	395 J	20.1 J	8.4 J	7.1 J	7.8 J	5.8 J	15.2 J	21.1 J	11 J	44.8 J
Magnesium	1930 J	2750 J	18600 J	11500 J	2140	10200 J	9960 J	16100 J	20900 J	1690 J	25300 J	11700 J	29800 J
Manganese	457 J	2190 J	610 J	474 J	439	217	228	399	201	1490 J	835 J	795 J	1500 J
Mercury	0.05 U	0.06	0.09 U	0.09 UJ	0.05 U	0.05 U	0.05 U	0.05 U	0.05 U	1.5	0.10 U	0.11 U	0.04 U
Nickel	28.6 J	61.5 J	30.7 J	23.9 J	24.3 J	14.8 J	15.2 J	14.8 J	8.1 J	20.9 J	30.6 J	42 J	22.8 J
Potassium	1410	1050	1600 J	1050 J	1320 J	1050 J	1160 J	915 J	869 J	1470	1510	2370	1080
Selenium	0.54 J	1.8 J	0.36 U	0.81 J	1.0 J	0.43 J	0.25 J	0.33 J	0.17 UJ	1.2 J	0.69 J	0.58 J	0.28 UJ
Silver	0.14 U	0.15 U	0.14 U	0.11 U	0.11 U	0.2	0.1	0.09	0.07 U	0.12 U	0.12 U	0.12 U	0.11 U
Sodium	66.4	24.6 U	82.8	48.9	19.0 U	74.2	42.6 U	72.3	70	50.5	55.1	35.1	101
Thallium	0.51 UJ	0.53 UJ	0.49 U	0.38 U	0.41 U	0.26 U	0.25 U	0.25 U	0.24 U	0.39 U	0.38 U	1.1	0.39 UJ
Vanadium	26.5	23.6 J	28.1	15.7	26.1	16.1 J	16.5 J	13.1 J	12.6 J	32.3	25.1	27.1	13.1 J
Zinc	120	365 J	89.6 J	69.8 J	91.2 J	61.3 J	44.9 J	53.3 J	33.4 J	86.7 J	123 J	91.8 J	64.0 J

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
* – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Sire PRP Group.

TABLE 2-8
SOIL SAMPLING RESULTS SUMMARY – 1996*
METALS (µg/kg)

Sample ID:	SB-26	SB-26	SB-26	SB-26	SB-27	SB-27	SB-27	SB-27
Depth	2-4'	6-8'	12-14'	18-20'	2-4'	6-8'	12-14'	18-20'
Date Collected:	4/17/96	4/17/96	4/17/96	4/17/96	4/16/96	4/16/96	4/16/96	4/16/96
Aluminum	7980	8430	4300	4410	12900	5250	4740	5690
Antimony	0.56 J	0.14 J	0.41 J	0.55 J	0.53 J	0.40 UJ	0.39 J	0.58 J
Arsenic	74.1 J	19.4 J	12.7 J	24.4 J	17.2 J	26.3	21.8 J	26.1 J
Barium	86.8	76.6	85.8	190	41.5	38.8	33.3	90
Beryllium	0.6	0.54	0.37	0.3	0.62	0.36	0.34	0.41
Cadmium	0.55	0.63	0.95	0.71	0.08 U	0.79	0.49 U	0.88
Calcium	1890	37500	96100	76300	7800	37000 J	78900	26100
Chromium	14	11.6	7.2	10.7	17.2	7.8	7.8	10.3
Cobalt	9.9	9.0	5.2	6.1	7.8	8.3	6.2	38.5
Copper	27.2	26.3	32.1	18	31	26.3	24.5	23.9
Iron	54700 J	26600 J	30100 J	27600 J	28600 J	26200	21900 J	32500 J
Lead	17.1 J	17.4 J	7.7 J	12.1 J	13.5 J	19.2 J	13.9 J	38.8 J
Magnesium	2510	11700	25600	21400	3960	19100 J	31000	11400
Manganese	356	336	829	419	153	470	373	1700
Mercury	0.07 U	0.10 U	0.08 U	0.05 U	0.06 U	0.11 U	0.05 U	0.08 U
Nickel	44.4	27.2	27.4	19	26	30.7	18.3	49.8
Potassium	1650	2230	1110	1540	2140	959	1290	1330
Selenium	1.0 J	0.41 J	0.34 UJ	0.33 UJ	0.38 U	0.35 U	0.36 UJ	0.39 J
Silver	0.13 U	0.14 U	0.13 U	0.13 U	0.15 U	0.13 U	0.14 U	0.14 U
Sodium	52.2	86.7	88.9	25.2	101	111	105	85.9
Thallium	0.46 U	0.52 U	0.48 U	0.46 U	0.55	0.48 U	0.50 U	0.49 U
Vanadium	28.3	30.6	20.4	18.7	40.4	20.4	22	20.9
Zinc	97.2	119	127	70.3	86.4	162	75.6	89.7

U – Not Detected. The number represents the method detection limit.
J – Estimated value
UJ – Estimated quantitation limit
* – Metcalf & Eddy, Inc., 1996, Soil Data Report for the Granville Solvents Site in Granville, Ohio, for the Granville Solvents Sire PRP Group.



EXPLANATION

- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs, SVOCs, AND METALS & PHYSICAL ANALYSIS)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs, SVOCs, AND METALS)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs ONLY)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs AND PHYSICAL ANALYSIS)
- BUILDING

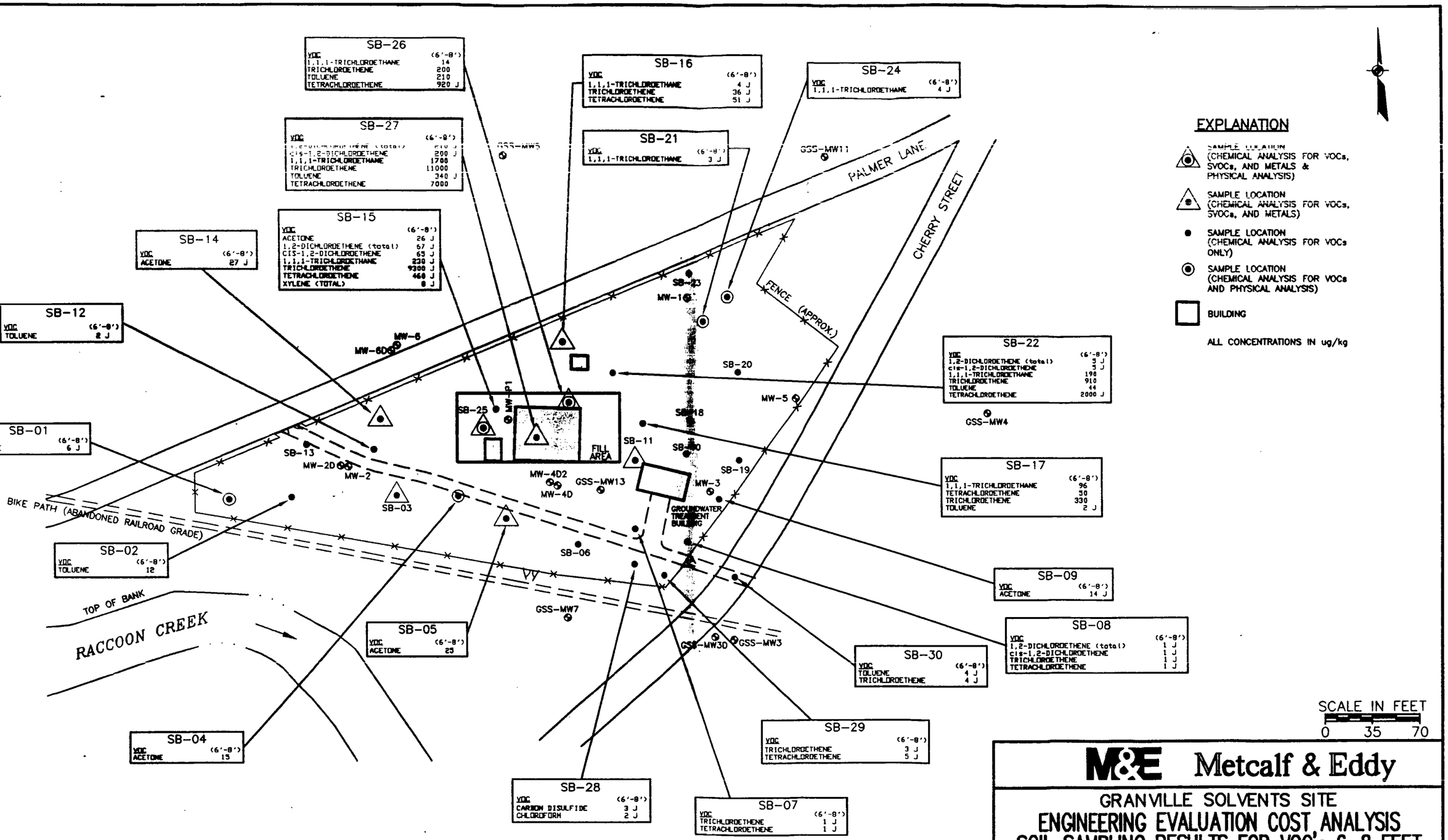
ALL CONCENTRATIONS IN ug/kg

SCALE IN FEET
0 35 70

M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR VOC's 2-4 FEET
APRIL, 1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-6	BC	TPF	FEB 97	016688	7



M&E Metcalf & Eddy

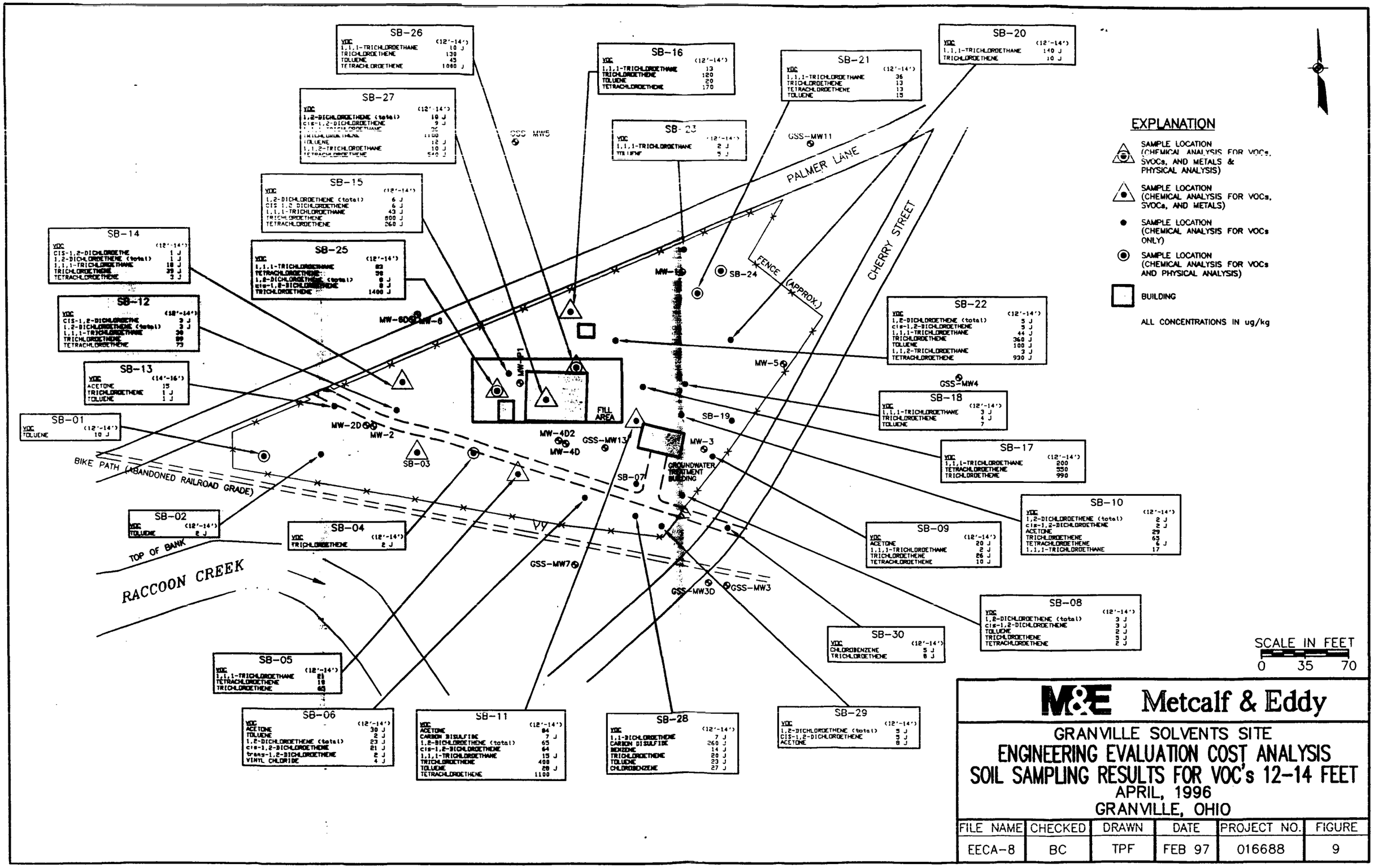
GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS SOIL SAMPLING RESULTS FOR VOC's 6-8 FEET

APRIL, 1996

GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-7	BC	TPF	FEB 97	016688	8



Metcalf & Eddy

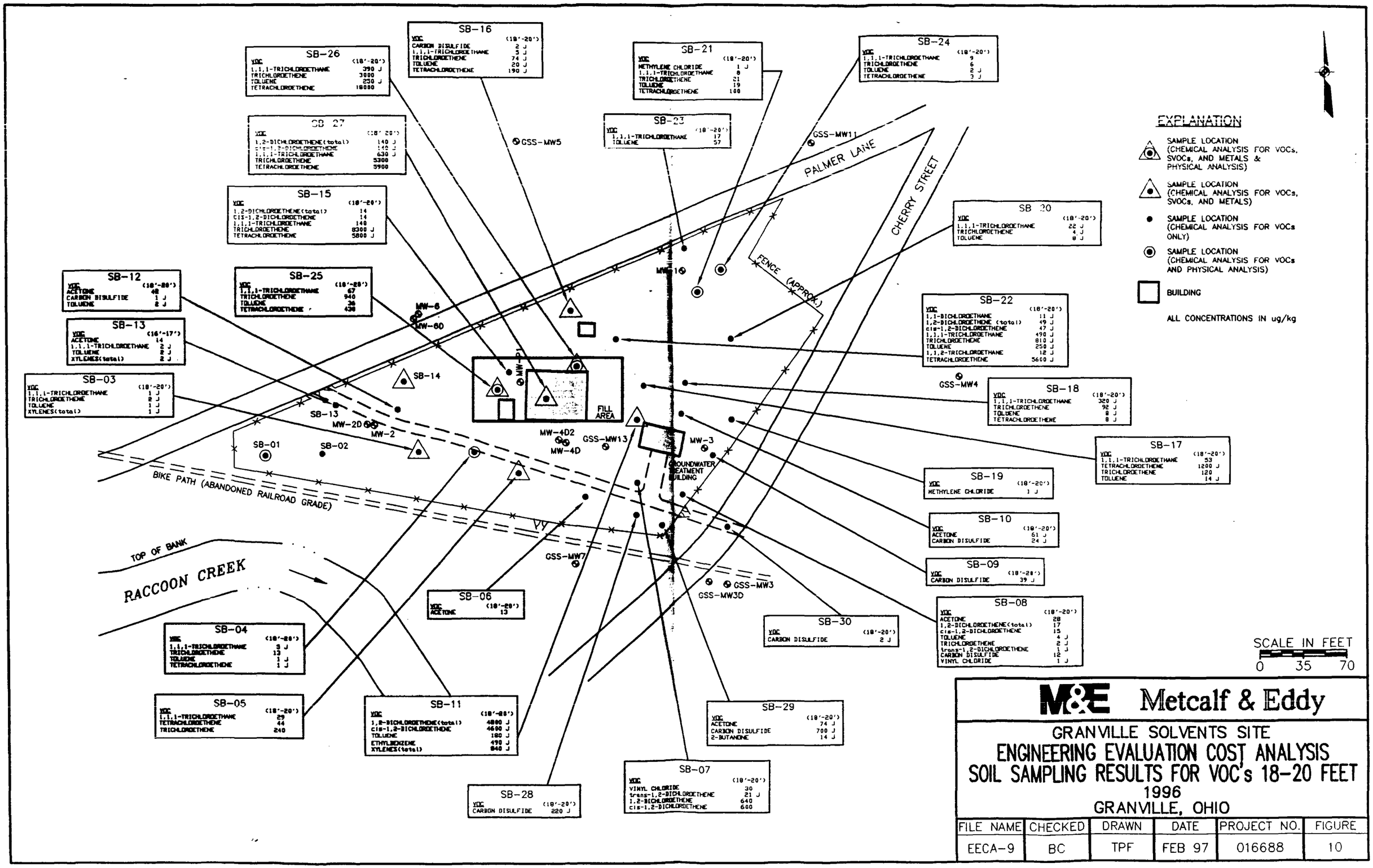
GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR VOC's 12-14 FEET

APRIL, 1996

GRANVILLE, OHIO

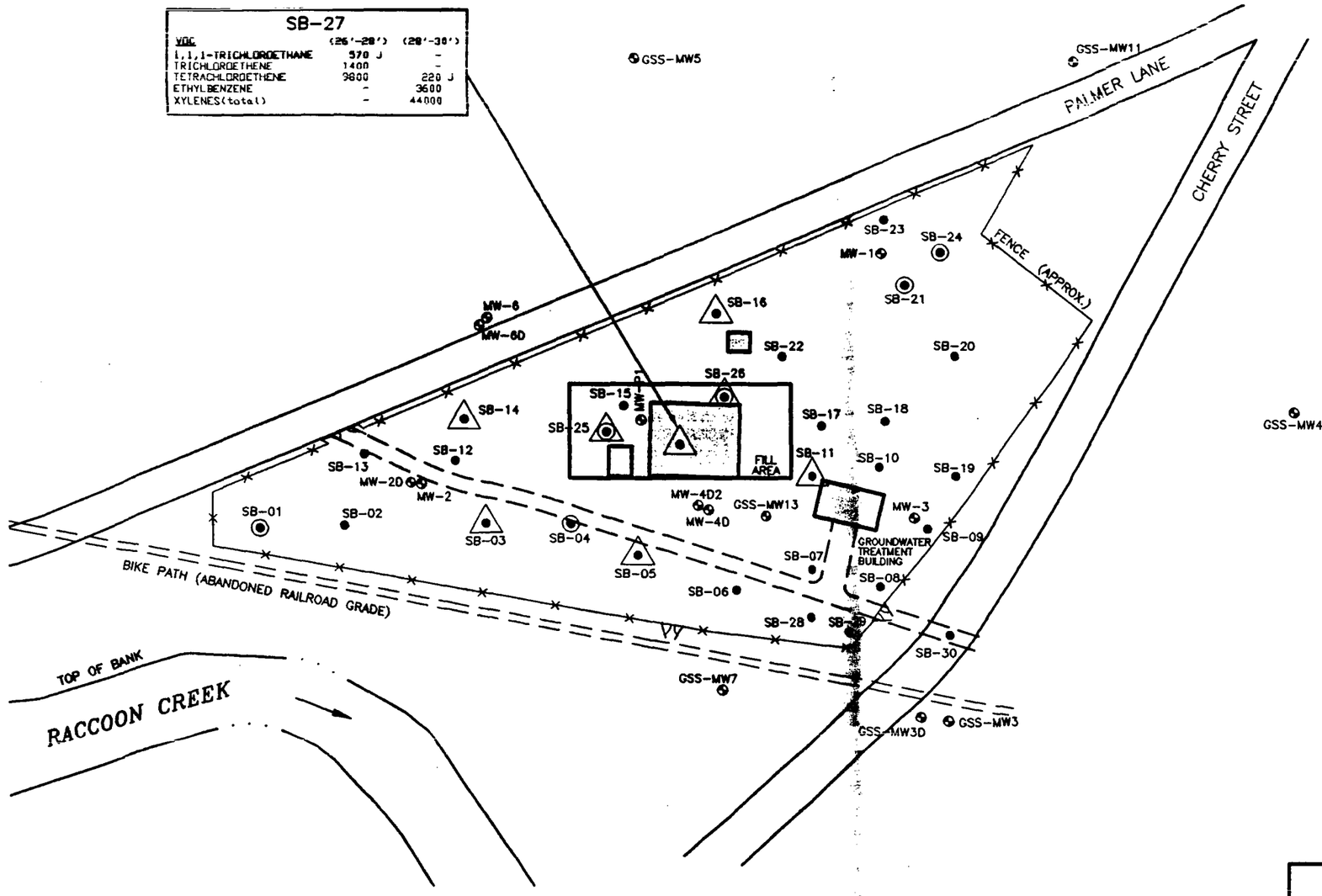
FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-8	BC	TPF	FEB 97	016688	9



Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR VOC's 18-20 FEET
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-9	BC	TPF	FEB 97	016688	10



EXPLANATION

- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs, SVOCs, AND METALS & PHYSICAL ANALYSIS)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs, SVOCs, AND METALS)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs ONLY)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs AND PHYSICAL ANALYSIS)
- BUILDING

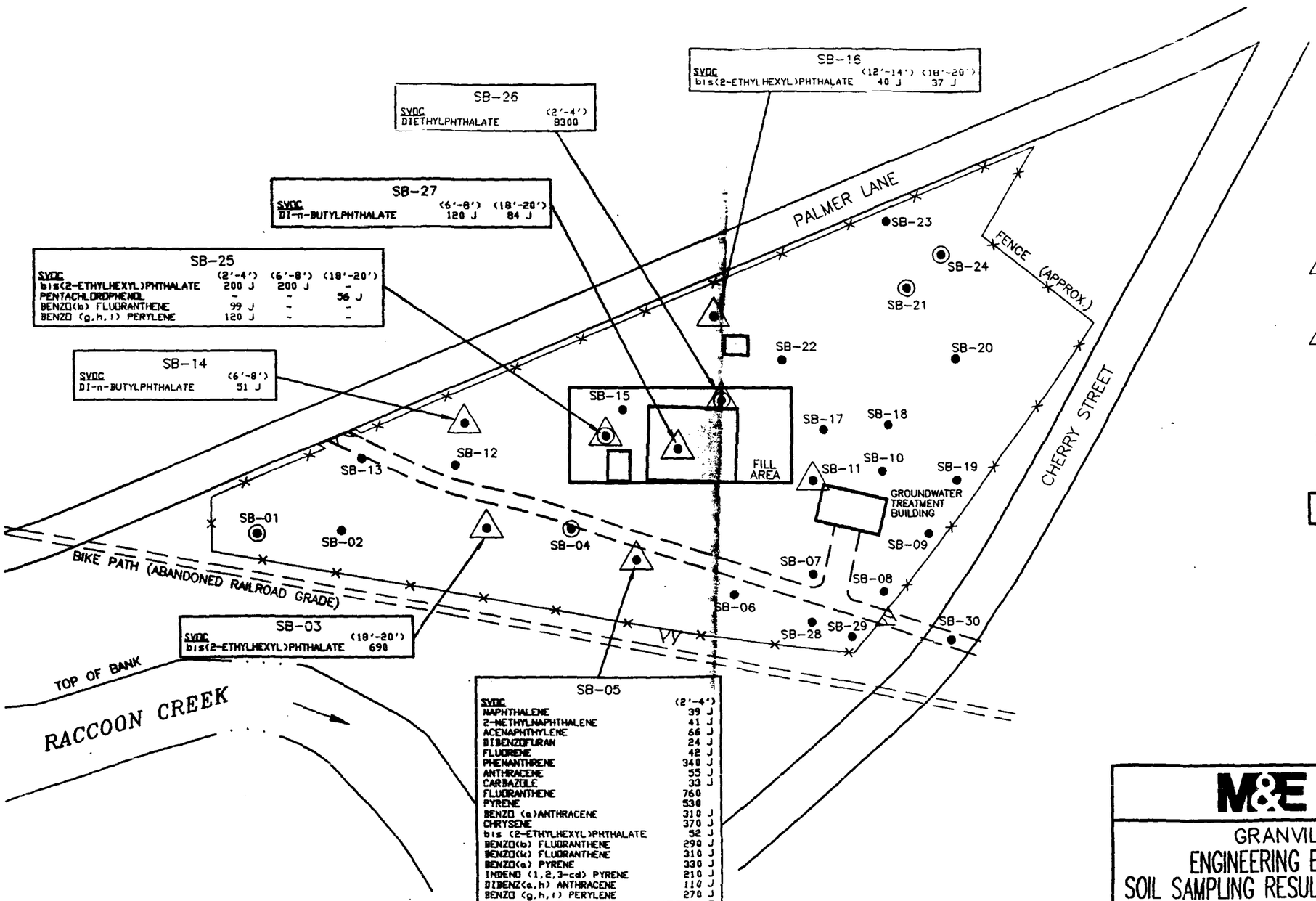
ALL CONCENTRATIONS IN ug/kg

SCALE IN FEET
0 35 70

M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR VOC's 26-30 FEET
1996
GRANVILLE, OHIO

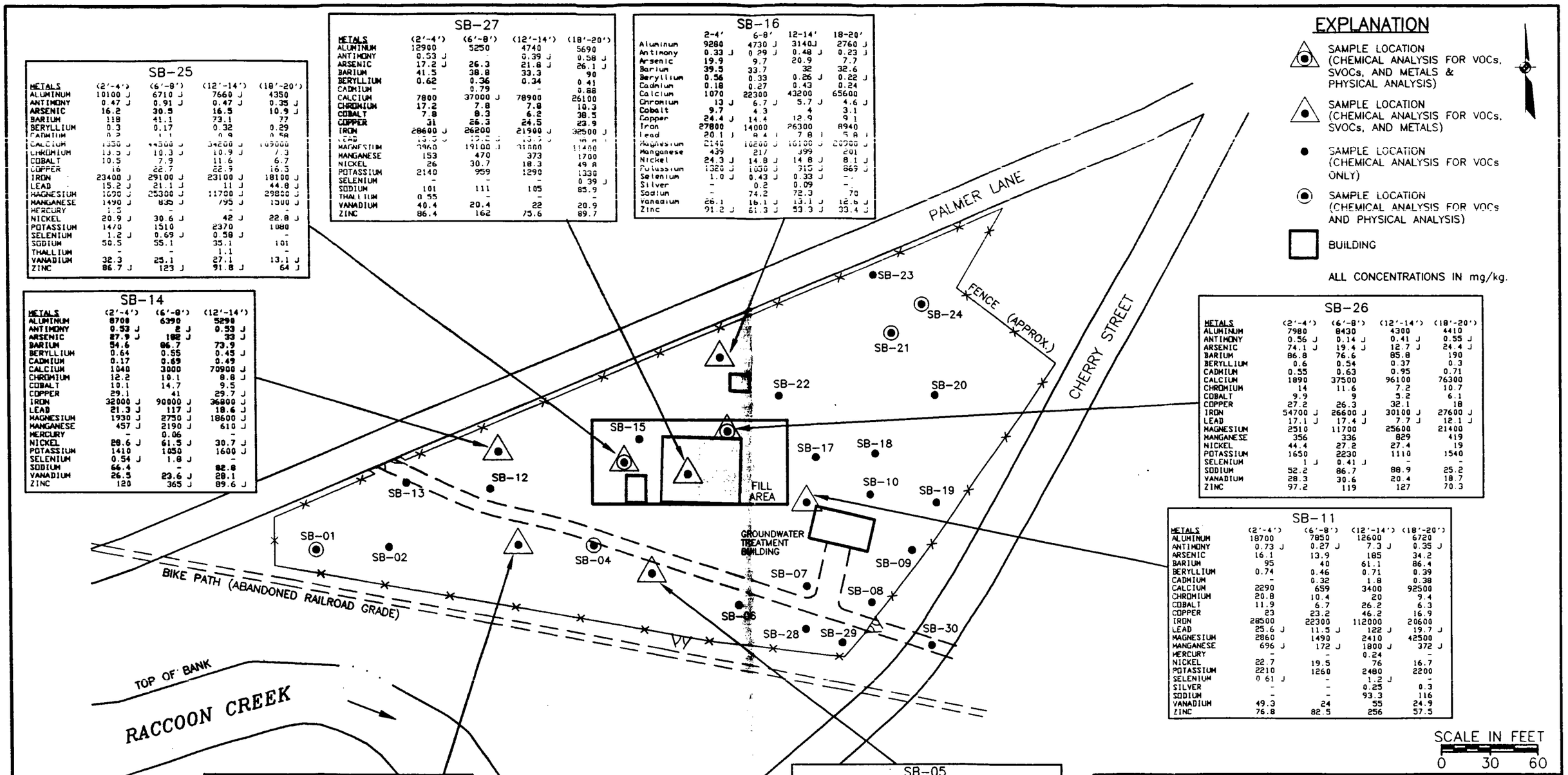
FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-9	BC	TPF	FEB 97	016688	11



Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR SVOC's AT ALL INTERVALS
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-11	BC	TPF	FEB 97	016688	12



SB-25

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	10100 J	6710 J	7660 J	4350
ANTIMONY	0.47 J	0.91 J	0.47 J	0.35 J
ARSENIC	16.2	30.5	16.5	10.9 J
BARIUM	118	41.1	73.1	77
BERYLLIUM	0.3	0.17	0.32	0.29
CADMIUM	0.2	-	0.9	0.68
CALCIUM	1350 J	99300 J	34600 J	109000
CHROMIUM	13.3 J	10.3 J	10.9 J	7.3
COBALT	10.5	7.9	11.6	6.7
COPPER	18	22.7	22.9	16.5
IRON	23400 J	29100 J	23100 J	18100 J
LEAD	15.2 J	21.1 J	11 J	44.8 J
MAGNESIUM	1090 J	25300 J	11700 J	29800 J
MANGANESE	1490 J	835 J	795 J	1500 J
MERCURY	1.5	-	-	-
NICKEL	20.9 J	30.6 J	42 J	22.8 J
POTASSIUM	1470	1510	2370	1080
SELENIUM	1.2 J	0.69 J	0.58 J	-
SODIUM	50.5	55.1	35.1	101
THALLIUM	-	-	1.1	-
VANADIUM	32.3	25.1	27.1	13.1 J
ZINC	86.7 J	123 J	91.8 J	64 J

SB-27

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	12900	5250	4740	5690
ANTIMONY	0.53 J	-	0.39 J	0.58 J
ARSENIC	17.2 J	26.3	21.8 J	26.1 J
BARIUM	41.5	38.8	33.3	90
BERYLLIUM	0.62	0.36	0.34	0.41
CADMIUM	-	0.79	-	0.88
CALCIUM	7800	37000 J	78900	26100
CHROMIUM	17.2	7.8	7.8	10.3
COBALT	7.8	8.3	6.2	38.5
COPPER	31	26.3	24.5	23.9
IRON	28600 J	26200	21900 J	32500 J
LEAD	15.5 J	13.2 J	13.2 J	10.8 J
MAGNESIUM	3960	19100 J	11800	11400
MANGANESE	153	470	373	1700
NICKEL	26	30.7	18.3	49.8
POTASSIUM	2140	959	1290	1330
SELENIUM	-	-	-	0.39 J
SODIUM	101	111	105	85.9
THALLIUM	0.55	-	-	-
VANADIUM	40.4	20.4	22	20.9
ZINC	86.4	162	75.6	89.7

SB-16

	2-4'	6-8'	12-14'	18-20'
Aluminum	9280	4730 J	3140J	2760 J
Antimony	0.33 J	0.29 J	0.48 J	0.23 J
Arsenic	19.9	9.7	20.9	7.7
Barium	39.5	33.7	32	32.6
Beryllium	0.56	0.33	0.86 J	0.22 J
Cadmium	0.18	0.27	0.43	0.24
Calcium	1070	22300	43200	65600
Chromium	13 J	6.7 J	5.7 J	4.6 J
Cobalt	9.7	4.3	4	3.1
Copper	24.4 J	14.4	12.9	9.1
Iron	27800	14000	26300	8940
Lead	20.1 J	8.4 J	7.8 J	5.8 J
Magnesium	2148	10200 J	10100 J	20200 J
Manganese	439	217	499	201
Nickel	24.3 J	14.8 J	14.8 J	8.1 J
Potassium	1320 J	1030 J	915 J	865 J
Selenium	1.0 J	0.43 J	0.33 J	-
Silver	-	0.2	0.09	-
Sodium	-	74.2	72.3	70
Vanadium	26.1	16.1 J	13.1 J	12.6 J
Zinc	91.2 J	61.3 J	53.3 J	33.4 J

SB-14

METALS	(2'-4')	(6'-8')	(12'-14')
ALUMINUM	8700	6390	5290
ANTIMONY	0.53 J	2 J	0.53 J
ARSENIC	87.9 J	182 J	33 J
BARIUM	54.6	86.7	73.9
BERYLLIUM	0.64	0.55	0.45 J
CADMIUM	0.17	0.69	0.49
CALCIUM	1040	3000	70900 J
CHROMIUM	12.2	10.1	8.8 J
COBALT	10.1	14.7	9.5
COPPER	29.1	41	29.7 J
IRON	32000 J	90000 J	36800 J
LEAD	21.3 J	117 J	18.6 J
MAGNESIUM	1930 J	2750 J	18600 J
MANGANESE	457 J	2190 J	610 J
MERCURY	-	0.06	-
NICKEL	88.6 J	61.5 J	30.7 J
POTASSIUM	1410	1050	1600 J
SELENIUM	0.54 J	1.8 J	-
SODIUM	66.4	-	82.8
VANADIUM	26.5	23.6 J	28.1
ZINC	120	365 J	89.6 J

SB-26

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	7980	8430	4300	4410
ANTIMONY	0.56 J	0.14 J	0.41 J	0.55 J
ARSENIC	74.1 J	19.4 J	12.7 J	24.4 J
BARIUM	86.8	76.6	85.8	190
BERYLLIUM	0.6	0.54	0.37	0.3
CADMIUM	0.55	0.63	0.95	0.71
CALCIUM	1890	37500	96100	76300
CHROMIUM	14	11.6	7.2	10.7
COBALT	9.9	9	3.2	6.1
COPPER	27.2	26.3	32.1	18
IRON	54700 J	26600 J	30100 J	27600 J
LEAD	17.1 J	17.4 J	7.7 J	12.1 J
MAGNESIUM	2510	11700	25600	21400
MANGANESE	356	336	829	419
NICKEL	44.4	27.2	27.4	19
POTASSIUM	1650	2230	1110	1540
SELENIUM	1 J	0.41 J	-	-
SODIUM	52.2	86.7	88.9	25.2
VANADIUM	28.3	30.6	20.4	18.7
ZINC	97.2	119	127	70.3

SB-11

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	18700	7850	12600	6720
ANTIMONY	0.73 J	0.27 J	7.3 J	0.35 J
ARSENIC	16.1	13.9	185	34.2
BARIUM	95	40	61.1	86.4
BERYLLIUM	0.74	0.46	0.71	0.39
CADMIUM	-	0.32	1.8	0.38
CALCIUM	2290	659	3400	92500
CHROMIUM	20.8	10.4	20	9.4
COBALT	11.9	6.7	26.2	6.3
COPPER	23	23.2	46.2	16.9
IRON	28500	22300	112000	20600
LEAD	25.6 J	11.5 J	122 J	19.7 J
MAGNESIUM	2860	1490	2410	42500
MANGANESE	696 J	172 J	1800 J	372 J
MERCURY	-	-	0.24	-
NICKEL	22.7	19.5	76	16.7
POTASSIUM	2210	1260	2480	2200
SELENIUM	0.61 J	-	1.2 J	-
SILVER	-	-	0.25	0.3
SODIUM	-	-	93.3	116
VANADIUM	49.3	24	55	24.9
ZINC	76.8	82.5	256	57.5

SB-03

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	13900 J	11300 J	12400 J	6540 J
ANTIMONY	0.47 J	0.47 J	0.46 J	2
ARSENIC	16.9	24.5	18.1 J	116 J
BARIUM	62.8	62.4	59.4 J	52.1 J
BERYLLIUM	0.13	0.28	0.29	0.17
CADMIUM	0.06	0.2	0.73 J	1.9 J
CALCIUM	1400 J	1330 J	1780 J	51600 J
CHROMIUM	16.8 J	14.8 J	18.2 J	10.2 J
COBALT	9.3	8.1	8.9 J	11.5 J
COPPER	24	25.8	25.1	34.1
IRON	27500 J	26600 J	28400 J	59300 J
LEAD	14.7 J	14 J	16.1 J	64.3 J
MAGNESIUM	2310 J	2180 J	2830 J	23600 J
MANGANESE	482 J	565 J	474 J	489 J
NICKEL	20.3 J	22.7 J	34.1 J	33.3 J
POTASSIUM	1830	1410	2620 J	1810 J
SELENIUM	1.4 J	1.2 J	1.3	2.3
THALLIUM	0.64	0.58	1.2	1.5
VANADIUM	40.1	32.6	50 J	30.5 J
ZINC	97 J	80.8 J	126 J	167 J

SB-05

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	15400	13100	4250	4140
ANTIMONY	1.2 J	1 J	0.67 J	1.5 J
ARSENIC	28 J	23.9 J	21.9 J	35.3 J
BARIUM	107	107	57.2	55.3
BERYLLIUM	0.95 J	0.9 J	0.38 J	0.28 J
CADMIUM	0.84	0.65	0.81	0.85
CALCIUM	9330	6590	84100	107000
CHROMIUM	19.9	16.8	7.5	8.6
COBALT	13.8	12.2	5.8	7.8
COPPER	38.5	33.1	20.5	19.4
IRON	36600 J	31800 J	24300 J	38400 J
LEAD	52.4 J	41.5 J	15.1 J	51 J
MAGNESIUM	6700	4620	30500	25000
MANGANESE	862	858	1260	569
MERCURY	0.1	-	-	-
NICKEL	33.5 J	30.2 J	19 J	25.3 J
SELENIUM	0.83 J	0.62 J	-	2.3 J
SILVER	-	-	-	0.16
SODIUM	148	116	165	70.7
VANADIUM	49.7 J	41.3 J	21.7 J	22.5 J
ZINC	149 J	116 J	109 J	111 J

EXPLANATION

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- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs ONLY)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs AND PHYSICAL ANALYSIS)
- BUILDING

ALL CONCENTRATIONS IN mg/kg.

SCALE IN FEET
0 30 60

M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR METALS AT ALL INTERVALS
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-12	BC	TPF	FEB 97	016688	13

BACKGROUND 5

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	13200	7940	8830	10300
ANTIMONY	0.31 J	-	0.33 J	0.28 J
ARSENIC	18.1 J	18.1 J	6.7 J	18.4 J
BARIUM	101	46.5	58.6	68.9
BERYLLIUM	0.75 J	0.47 J	0.49 J	0.57 J
CADMIUM	0.18	0.57	1.7	0.31
CALCIUM	1090	7650	10800	50900
CHROMIUM	18.2	11.4	18.1	14.5
COBALT	8.8	6.7	6.3	8.9
COPPER	17.9	14.6	14.1	23.6
IRON	31100	13200	15100	31700
LEAD	19.8	18.2	18.1	14.2
MAGNESIUM	2020	2360	6430	19900
MANGANESE	209	153	267	353
NICKEL	29.4	29.2	17.6	29.9
POTASSIUM	2540	1770	2080	2730
SELENIUM	0.53 J	0.46 J	-	-
VANADIUM	44.9	36.8	23.3	36.9
ZINC	86.8	98.7	61.4	78.3

BACKGROUND 6

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	17000	11000	8780	14000
ANTIMONY	-	-	0.28 J	0.23 J
ARSENIC	17 J	3.3 J	28.8 J	16 J
BARIUM	148	66.7	72.6	99
BERYLLIUM	0.93 J	0.46 J	0.57 J	0.67 J
CADMIUM	0.33	0.23	0.08	0.32
CALCIUM	3180	1360	29700	51100
CHROMIUM	20.3	14.9	12.9	18.6
COBALT	8.5	4	9.7	8.6
COPPER	21.7	18.4	22.6	22.6
IRON	28200	11800	22400	2770
LEAD	16.9	8.9	13.7	14.3
MAGNESIUM	3180	2200	10200	16400
MANGANESE	590	88.2	797	358
NICKEL	33.8	48.9	23.4	22.7
POTASSIUM	2940	2080	1900	3440
SELENIUM	0.47 J	-	0.52 J	0.56 J
VANADIUM	54.7	39.3	26.8	45
ZINC	94.8	86.3	67.9	88.3

BACKGROUND 7

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	13000	7280	3040	7000 J
ANTIMONY	0.23 J	0.88 J	0.38 J	0.61 J
ARSENIC	16.8 J	7.8 J	10.8	19.1
BARIUM	98.1	58.6	34.6	69.7
BERYLLIUM	0.73 J	0.39 J	0.12	0.34
CADMIUM	0.3	0.84	0.88	0.88
CALCIUM	8040	1260	41900 J	48900 J
CHROMIUM	16.6	10.7	14.5 J	11.1 J
COBALT	8.9	4.4	6.2	8.9
COPPER	16.9	9.8	16.5	20.5
IRON	24800	13400	14900 J	22900 J
LEAD	13.3	7.1	9.0 J	11.3 J
MAGNESIUM	2600	1470	18400 J	15400 J
MANGANESE	399	163	310 J	348 J
NICKEL	23.4	12.3	20.3 J	22.8 J
POTASSIUM	1860	1230	1490 J	2240
VANADIUM	44.8	27.4	15.3	38.2
ZINC	71.8	43.6	59.7 J	74.9
SELENIUM	-	-	1.9 J	1.1 J
SODIUM	-	-	79.3	75.6
THALLIUM	-	-	-	0.78

BACKGROUND 4

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	5610	3410	5680	3740
ANTIMONY	-	0.81 J	-	-
ARSENIC	16.4	76	14.4	14.9
BARIUM	46.8	42.3	34.3	39.6
BERYLLIUM	0.42	0.35	0.39	-
CADMIUM	1.1	1.5	1.1	0.5
CALCIUM	19800 J	64900 J	35400 J	128000 J
CHROMIUM	8.3	9.1	8.6	7.5
COBALT	7.1	10.3	8.2	4.3
COPPER	22.6	52.1	25.5	17.4
IRON	24200	53400	22500	18000
LEAD	11.1 J	61.6 J	10.2 J	17.5 J
MAGNESIUM	6810	8818 J	11200 J	57900 J
MANGANESE	484	387	372	293
NICKEL	30	31.9	26.6	15.2 J
POTASSIUM	1370	787	1600	1280
SELENIUM	0.29	-	0.62	-
SODIUM	82.1	76.8	98	157
VANADIUM	21.5	26.7	17	29.1
ZINC	110	277	145	53.6

BACKGROUND 3

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	9510	14000	4020	3910
ANTIMONY	0.73 J	-	-	-
ARSENIC	17.2	13.1	15.8	19.9
BARIUM	84.1	107	35.3	38.9
BERYLLIUM	0.63	0.86	0.33	0.3
CADMIUM	0.76	0.44	0.69	0.58
CALCIUM	14600 J	11500 J	98000 J	98000 J
CHROMIUM	13.5	19.9	6.2	6.5
COBALT	12.5	11.4	5.6	5.2
COPPER	26.7	30.9	20.1	19
IRON	28000	29800	17300	20500
LEAD	15.7 J	13.2 J	12.5 J	8.7 J
MAGNESIUM	7940 J	6750 J	26100 J	17200 J
MANGANESE	321	342	344	379
NICKEL	39.2	40.5	20.5	18.9
POTASSIUM	2240	3350	1210	862
SODIUM	131	139	101	87.7
VANADIUM	28.1	34.6	19.5	14.7
ZINC	91.6	84.3	80.2	63.4

BACKGROUND 2

METALS	(2'-4')	(6'-8')	(12'-14')	(18'-20')
ALUMINUM	4120	9110	6870	3290
ANTIMONY	0.74 J	0.19 J	0.62 J	1.1 J
ARSENIC	14.1 J	13.3 J	18.5 J	211
BARIUM	42.7	73.5	61.1	29.5
BERYLLIUM	0.34 J	0.57 J	0.53	0.23
CADMIUM	0.34	0.44	0.87	1.8
CALCIUM	24900	11400 J	100000 J	120000 J
CHROMIUM	7.2	11.7	10.1	6
COBALT	4.6	8.6	9.4	9.2
COPPER	8.2	18.8	39.7	28.5
IRON	16600 J	20100 J	25800	99500
LEAD	15.9 J	14.4 J	13.5 J	92.5 J
MAGNESIUM	9080	1360	2150 J	43200 J
MANGANESE	488	731	379	352
MERCURY	-	-	-	0.23 J
NICKEL	10.2 J	17.8 J	32.5	26
POTASSIUM	-	-	1600	704
SELENIUM	-	0.36 J	0.75	-
SILVER	-	-	-	0.27
SODIUM	-	-	102	163
THALLIUM	-	-	-	0.68
VANADIUM	15.8 J	25.3 J	22.2	26.3
ZINC	40.5 J	79.3 J	101	117

BACKGROUND 1

METALS	(2'-4')	(6'-8')	(12'-14')
ALUMINUM	4110	13600	4020
ANTIMONY	0.59 J	0.39 J	0.32 J
ARSENIC	17.1 J	14.9	10.4
BARIUM	45.3	87.1	17.7
BERYLLIUM	0.57 J	0.79	0.29
CADMIUM	0.33	0.16	0.62
CALCIUM	64900 J	3260	59300
CHROMIUM	7.2 J	15.1 J	7.2 J
COBALT	3.5	22.5	11.7
COPPER	23.4 J	23.9 J	17.6 J
IRON	14800 J	25800	14200
LEAD	19.9 J	19.4 J	9.3 J
MAGNESIUM	20700 J	2430	24600
MANGANESE	293 J	957 J	200 J
MERCURY	0.36 J	0.07	-
NICKEL	13.7 J	23.3 J	22.9 J
POTASSIUM	862 J	1240	966 J
SELENIUM	0.73 J	0.71 J	1.6 J
SODIUM	42	92.8	109
VANADIUM	17.4	36.4	16
ZINC	58.1 J	73.2 J	-

FIELD

RACCOON CREEK

PALMER LANE

CHERRY STREET

FENCE (APPROX.)

FILL AREA

BIKE PATH (ABANDONED RAILROAD GRADE)

GROUNDWATER TREATMENT BUILDING

EXPLANATION

- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs, SVOCs, AND METALS & PHYSICAL ANALYSIS)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs, SVOCs, AND METALS)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs ONLY)
- SAMPLE LOCATION (CHEMICAL ANALYSIS FOR VOCs AND PHYSICAL ANALYSIS)
- BACKGROUND SAMPLE LOCATION (CHEMICAL ANALYSIS FOR METALS ONLY)
- BUILDING
- TREE LINE

ALL CONCENTRATIONS IN mg/kg

SCALE IN FEET
0 100 200

Metcalf & Eddy

GRANVILLE SOLVENTS SITE
ENGINEERING EVALUATION COST ANALYSIS
SOIL SAMPLING RESULTS FOR
BACKGROUND METALS AT ALL INTERVALS
1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-13	BC	TPF	FEB 97	016688	14

Figure 6 shows the areal distribution of VOCs at a depth of two to four feet. At this depth, the highest concentrations were detected in SB-26. All of the detections were clustered among the Site buildings with the exception of a detection of tetrachloroethene (200 μg/kg) at SB-08 in the southeast corner of the Site.

Figure 7 shows the areal distribution at a depth of six to eight feet. The highest concentration of VOCs was clustered around the Site buildings and fill area with concentrations reported in the borings directly to the north (SB-16 and SB-22) and east (SB-17) of the fill area.

Figure 8 shows the areal distribution of VOCs at a depth of 12 to 14 feet. These concentrations are clustered in/or around the fill area and Site buildings. A wider areal extent of detections is found at this depth than in the overlying samples. Detections extended to the north (SB-16 and SB-22), east (SB-17 and SB-11), and to the south (SB-28 and SB-05) of the fill area. As SB-06 and SB-07, respectively west and north of SB-28, had no detections of these chemicals, this may be an isolated hot spot. SB-11 encountered perched groundwater at a depth of approximately eight feet.

Figure 10 shows the areal distribution of VOCs at a depth of 18 to 20 feet. This is the largest aerial distribution of these chemicals from all of the sampled intervals. Three borings north of the fill area (SB-16, SB-21, and SB-22), three borings east of the fill area (SB-11, SB-17, and SB-18), and two borings south of the fill area (SB-05 and SB-07) had detections of moderate concentrations. Groundwater depths in these borings range from 8 to 23.8 feet below ground surface. All borings within the fill area encountered water between the depths of 22 and 23.8 feet. Samples from borings SB-05, SB-07 and SB-11 at this interval were in the saturated zone.

Figure 11 shows the areal distribution of VOCs at depth intervals of 26-38 and 28-30 feet. These intervals lie below the water table.

Semivolatile organic compounds (SVOCs) were detected at seven locations (Figure 12). Detections were clustered in or around the fill area. The highest concentrations were to the south of the fill area (SB-03 and SB-05). None of the concentrations exceeded PRGs.

Metals concentrations were reported on Figure 13. Based upon the results of the Streamlined Risk Evaluation, none of the metals are at concentrations requiring independent Removal Action (see Section 2.5).

2.3.2.4 Soil Air Permeability Evaluations

Between May and June 1994, M&E conducted three soil vapor removal (SVR) pilot evaluations at the Site. These evaluations were conducted to obtain information regarding soil permeability for air and VOC removal rates.

M&E installed four SVR wells on the Granville Solvents Site and four SVR wells in the vicinity of the Village of Granville Water Treatment Plant. The wells were installed on a Cartesian Coordinate System with one well installed at the origin, one well installed on the X axis 15 feet from the origin (x=15) and two wells installed on the Y axis 10 and 25 feet from the origin, respectively. All wells were installed to approximately 2 feet above the water table with a maximum depth of 20 feet. SVR wells were constructed of 2-inch Schedule 40 PVC with a 20-slot screen. The wells were completed with approximately 2 feet of stick-up for easy connection to the pilot unit (*Draft Work Plan Removal Action,* December 1994).

The pilot system was connected to the vapor extraction test well (located at the origin) and monitoring equipment was attached to the monitoring wells. After M&E recorded baseline data from the monitoring equipment, the blower was engaged and M&E began recording test data. Vacuum and velocity measurements were recorded approximately every 10 minutes during the test. M&E collected data more frequently during the first hour of the test. Photoionization detector readings were collected and recorded predominantly from the discharge stack and from the monitoring points during the test. Groundwater level data were obtained whenever a monitoring point indicated a rising pressure in the well. The rising pressure may be attributed to upwelling of the aquifer. The tests were conducted for a minimum of 2 hours with a maximum of 6 hours. Discharge of the extracted air to the atmosphere was approved by a letter from Jay McCoy of the Ohio Environmental Protection Agency.

The results of the pilot evaluations on the Site indicate low air permeability through the surrounding soils. A wide range of vacuum levels were applied to the vacuum extraction well with no response in the monitoring wells surrounding the extraction well. Air velocity readings obtained from the pilot system's induction pipe indicated minimal air flow from the extraction well. The radius of influence surrounding the extraction well was less than 3 feet in diameter.

The results of the pilot evaluation near the Granville Water Treatment Plant indicated that a vacuum response was recorded 15 feet away from the extraction well giving the extraction well a radius of influence of approximately 15 feet. In addition, the extraction well produced approximately 100 cubic feet per minute (cfm) with an applied vacuum of 29 inches of water.

2.3.3 Effect of the Groundwater Barrier, Extraction and Treatment System

As required by the AOC, two extraction wells were installed between PW-1 and the former warehouse, and a groundwater barrier, extraction and treatment system was activated in 1994. As required by the AOC, PW-1 was replaced by PW-4. The Village of Granville water supply now comes entirely from PW-2, PW-3, and PW-4.

The operation of the extraction wells changed the groundwater flow direction. Potentiometric contour maps made before and after the extraction wells were installed show the changes in the flow system. Groundwater gradients are low and groundwater movement was slow, on the order of a few inches per day in the solvents area, but considerably faster as it neared the wellfield and gradients increased (see *Monitoring Well Installation Report*, December 1996).

The hydraulic connection appears to be poor between the aquifer and Raccoon Creek. This was suggested by pumping tests made after the extraction wells were installed in late 1994 (*Aquifer Pumping Rest Report*, 1995). The tests, one of four days' duration, did not show the presence of recharge boundaries on the time-drawdown graphs that might correspond to leakage from Raccoon Creek. Neither do the potentiometric maps made after the extraction wells were being pumped provide evidence of a strong connection between the Creek and the aquifer.

The potentiometric map, based on water-level measurements made January 30, 1995 (Figure 15), and January 18, 1996 (the first based on measurements made after the latest group of monitor wells had been installed and developed). Figure 16 confirms complete control of the flow system in the vicinity of the two extraction wells, and a groundwater divide in the vicinity of supply well PW-1 that prevents movement of water toward wells PW-2, PW-3 and PW-4.

The two extraction wells, EW-1 and EW-2, are pumped at rates sufficient to establish hydraulic control but not to put an excessive quantity of water through the treatment system (see *Removal Action Aquifer*

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E 2,500 E 3,000 E 3,500 E 4,000 E 4,500 E 5,000

N 5,500

N 5,000

N 4,500

Nonresponsive map showing municipal well locations

EXPLANATION
- MONITOR WELLS
- AIR MONITORING STATIONS
- EXTRACTION WELLS
- VILLAGE PRODUCTION WELLS
- OBSERVATION WELL
- OSS-MW1 MONITOR WELL NOT YET INSTALLED
- PH4 PIEZOMETER NOT YET INSTALLED
- * WATER LEVEL NOT USED IN CONTOURING

NOTES:
OSS-EW1 PUMPING AT 300 GPM
OSS-EW2 PUMPING AT 100 GPM
VILLAGE WELL PW-2 PUMPING AT ABOUT 750 GPM

CONTOUR INTERVAL = 0.2 FEET

SCALE IN FEET
0 100 200

M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS
POTENTIOMETRIC SURFACE
JANUARY 30, 1995
GRANVILLE, OHIO

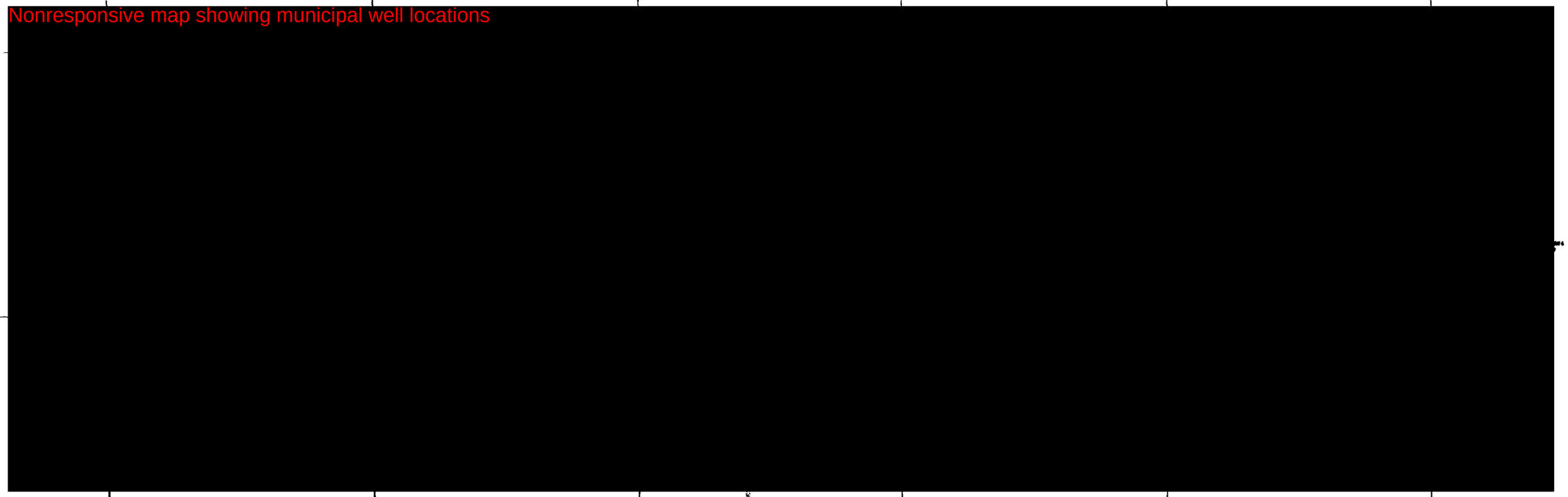
FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-4	BC	TPF	FEB 97	016688	15

E 2,500 E 3,000 E 3,500 E 4,000 E 4,500 E 5,000

N 5,500

N 5,000

N 4,500



EXPLANATION

- MONITOR WELLS
- AIR MONITORING STATIONS
- EXTRACTION WELLS
- VILLAGE PRODUCTION WELLS
- OBSERVATION WELL
- PH4 PIEZOMETER NOT YET INSTALLED

NOTES:
GSE-EW1 PUMPING AT 150 GPM
GSE-EW2 PUMPING AT 105 GPM
VILLAGE WELL PW-2 PUMPING AT ABOUT 750 GPM

CONTOUR INTERVAL = 0.2 FEET

SCALE IN FEET
0 100 200

M&E Metcalf & Eddy

GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS
POTENTIOMETRIC SURFACE
JANUARY 18, 1996
GRANVILLE, OHIO

FILE NAME	CHECKED	DRAWN	DATE	PROJECT NO.	FIGURE
EECA-2	BC	TPF	FEB 97	016688	16

Pumping Report). Results, so far, show the extraction rates (160 gal/min from EW-1, and 75 gal/min from EW-2) are effective in maintaining the barrier and removing the contaminants. Both wells are highly efficient and could be pumped at much higher rates if needed. The pumping tests showed this aquifer to be extensive and highly transmissive. Although the supply wells require cleaning and iron removal from time to time, water levels in the aquifer recover quickly when the wells are shut down and there is no evidence of over-pumping.

2.4 ANALYTICAL DATA

2.4.1 Groundwater Data

The groundwater data collected during the course of the Removal Action are summarized above. The data collected by the PRP Group are included for reference in Appendix A.

2.4.2 Soil Data

The soil data collected during the course of the Removal Action are summarized above. The data collected by the PRP Group are included for reference in Appendix A.

2.5 STREAMLINED RISK EVALUATION

2.5.1 Introduction to the Risk Evaluation

A streamlined risk evaluation was performed for the chemicals remaining in soil at the GSS. The potential for adverse health effects to occur in association with exposure to these chemicals was determined for two groups of receptors most likely to come into contact with the soil at the site, namely, excavation workers and industrial workers. The results of the risk evaluation for an excavation worker and an industrial worker demonstrate that the risks associated with exposure to soil is below or within the U.S. EPA target range of 1E-04 to 1E-06 for carcinogenic risk and below the target noncancer hazard index of 1. The U.S. EPA has set risks on the order of 1E-04 to 1E-06 as the target range for risks at Superfund Sites (U.S. EPA, 1991). According to OSWER Directive 9355.0-30 (April 22, 1991), the total site risk to an individual should not exceed 1E-04 for lifetime excess cancer risk (U.S. EPA, 1991). For the excavation worker, exposure to soil via incidental ingestion, dermal contact with, and inhalation

of volatile organic chemicals was associated with a total carcinogenic risk of 4E-08 and a cumulative noncancer hazard index of 0.0014. For the industrial worker, the total carcinogenic risk and noncancer hazard index associated with exposure to soil via incidental ingestion, dermal contact with, and inhalation of volatile organic chemicals was 5E-06 and 0.043, respectively, which is only slightly higher than the excavation risk, but well within the U.S. EPA risk levels.

The streamlined risk evaluation was conducted only for the soils at the GSS. Site data collected in accordance with the *Design Technical Memorandum* (1995), *Groundwater Monitoring Program Plan* (1995), and the *Quality Assurance Project Plan* (1995) which were subsequently reported in the *Soil Data Summary Report* (1996) and the *Groundwater Monitoring Well Installation Report* (1996), were used in this risk evaluation. These data have been summarized in Sections 2.3 and 2.4 of this EE/CA. Chemicals of concern were identified first in the *Design Technical Memorandum* and again below, based on previous investigations. The streamlined risk evaluation provides an estimate of how, and to what extent, people might be exposed to the chemicals of concern and assesses the potential health effects if no action is taken on the Site soils at the GSS.

The AOC orders the PRP Group to:

> *"Treat soils at the Site to levels which will assure protection of human health and the environment, to levels which will attain all risk-based standards and federal and state ARARs, and to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."* (Section V.2.g).

This section of the report is separated into seven parts including this introduction. The conceptual site model of this property and the land use scenarios and potential pathways for exposure based on future use are described in Section 2.5.2. The chemicals of concern are identified and discussed in Section 2.5.3. Based on these chemicals and the potential exposure pathways, chemical exposure modeling was conducted and the results discussed in Section 2.5.4. The potential exposures to the chemicals of concern are evaluated using U.S. EPA risk assessment methodology. The risk characterization is provided in Section 2.5.5. As a means to evaluate the effect that the Site soils will have on the groundwater beneath the Site, the PRP Group developed a groundwater flow and contaminant fate and transport model. This model and its results were provided to the U.S.EPA in the *Groundwater Flow and Contaminant Fate and*

Transport Report (1996) and summarized below in Section 2.5.6. Section 2.5.7 is a summary of the streamlined risk evaluation and establishes treatment goals for the Site soils.

2.5.2 Conceptual Site Model

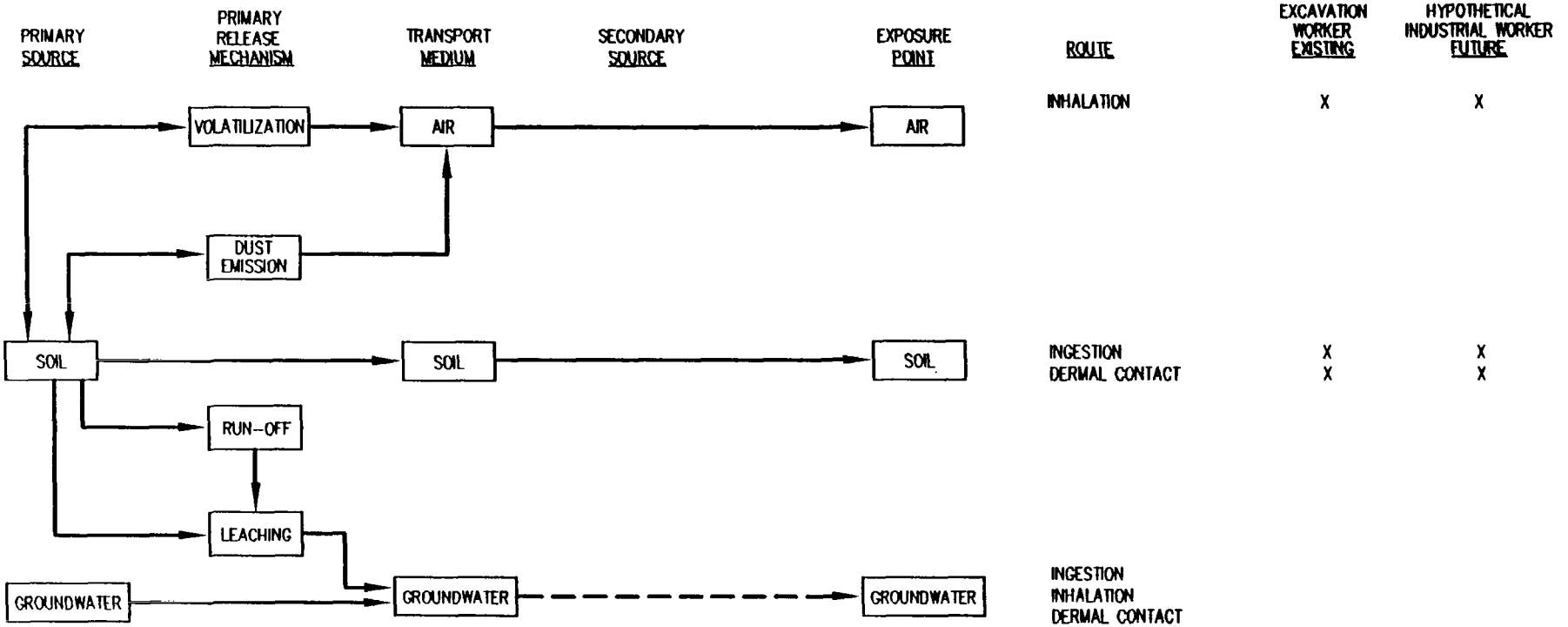
The conceptual site model (CSM), shown in Figure 17, was developed to present an understanding of the site dynamics for use in the exposure assessment of the risk evaluation. The CSM also delineates important fate and transport processes. In general, the CSM provides a presentation of the matrix of potential chemical sources and migration pathways, routes of exposure, and receptors potentially subject to exposure to chemicals in the environmental media at the GSS. The CSM focuses on complete exposure pathways. For an exposure pathway to be complete the following components must all be present: a source, a release mechanism, a transport medium, an exposure point, and a receptor.

Exposure pathways describe the movement of chemicals from sources to media where exposed populations (receptors) could potentially come in contact with the chemicals. Exposure routes describe the modes of contact and intake of chemicals in environmental media at exposure points. For example, trichloroethene in the soil (the source) at the GSS could be encountered or uncovered during drilling or excavation activities and released as a vapor (through a volatilization release mechanism) into the air (the transport medium). The air containing the trichloroethene could then be breathed by the excavator (through inhalation at the exposure point). This is a hypothetical scenario and such exposure pathways would be prevented through Health and Safety Practices enforced at the site. However, the example is illustrative of how the CSM is developed to characterize how exposures or contact with site-related chemicals might occur.

The human populations, individuals, or receptors who could feasibly be exposed to chemicals from the site are key to the process of characterizing risk associated with the site. The potential land use scenarios and receptors of concern for the GSS are presented in the following section.

2.5.2.1 Land Use Scenarios and Potential Populations of Concern

The Granville Solvents Inc. property located at 300 Palmer Lane in Granville, Licking County, Ohio operated as a petroleum bulk storage, distribution, and recycling facility and later as a solvent recycling and reclamation facility at this location for over 30 years. This long history of industrial use for this



Metcalf & Eddy

GRANVILLE SOLVENTS
HUMAN HEALTH SITE CONCEPTUAL MODEL
GRANVILLE, OHIO

Project Number 016688

File Name GRN-SCM2

Figure 17

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property is well established and it is still owned by Granville Solvents, Inc. At the present time, a locked twelve-foot high fence with three-strand barbed wire has been placed around the Site and area of impacted soil as ordered by the AOC (*Site Security Plan*, M&E, 1994). Based on the previous use and potential future use of the property, there are only two likely receptor groups who could feasibly be exposed to chemicals from the site for an extended period of time. The potential receptors of concern for the GSS site are excavation workers and industrial workers.

Even though the site is under secure conditions, there is the potential that there will be a time when it may be necessary to cross this Site with an underground utility, such as a sewer or electric line. In such a case, an excavation worker may be required to excavate soil to a given depth and install equipment below grade. There is the potential that this worker will be exposed for a short duration to the chemicals present in the Site soils via incidental ingestion, dermal contact, and inhalation of volatile emissions. Under no other conceivable circumstances could a person or persons realistically be exposed to subsurface soils at the site governed by current or future Site control.

The existing conditions of the site are expected to remain as is, enclosed by a locked fence and void of any long-term land use activity (i.e., residential use, commercial use, etc.). The area has limited space available for redevelopment. The presence of the water treatment plant and bridge overpass will most likely prevent any type of development of the site. However, the site is located on land that has been zoned for industrial use, and is bounded on the east and west by industrial property and on the south by a no-build zone adjacent to Raccoon Creek. Future plans to rezone the area do not currently exist, and zoning for industrial use will continue into the future. Therefore, the potential for an on-site future industrial worker does exist, however, exposure to chemicals of concern located eight to ten feet below surface is highly unlikely to occur.

Nevertheless, an industrial receptor will be included as a potential receptor for the GSS albeit a highly unlikely one, assuming redevelopment of the site for industrial use would bring soils at depth to the surface where potential exposure could occur via incidental ingestion, dermal contact, and inhalation of volatile emissions.

2.5.2.2 Exposure Assumptions for the Potential Receptors

For the excavation worker, the on-site work activities are assumed to occur 30 days per year, during which time the worker is on-site for eight hours per day. The excavation worker is also assumed to have a daily ingestion rate of 480 mg/kg. In addition, it is assumed that dermal exposure occurs at the head, hands, and arms, so that the skin surface area exposed is 3,200 cm^2. An adherence factor of 1.0 is used in conjunction with a default skin absorption factor of 25 percent. Furthermore, it is assumed that the excavation worker would not be physically handling the soil but would rely on bulldozers or backhoes, so that the inhalation rate of 0.83 m^3/hr for moderate activity is appropriately utilized for the inhalation exposure. For non-carcinogenic effects, exposure is averaged over the product of the exposure duration (in years) times 365 days per year. The exposure duration is the period of time over which the event may occur. Therefore, an exposure duration of one year is assumed for evaluating noncarcinogenic effects of the excavation worker. The length of time that the excavation worker may be in contact with soils is considered to be a short term, or subchronic exposure as opposed to a long-term, or chronic (greater than 7 years) exposure.

For the industrial worker, the on-site work activities are assumed to occur 250 days per year, during which time the worker is on-site for eight hours per day. The industrial worker is assumed to have a daily ingestion rate of 100 mg/kg. In addition, it is assumed that dermal exposure occurs at the head, hands, and arms, so that the skin surface area exposed is 3,200 cm^2. An adherence factor of 1.0 is used in conjunction with a default skin absorption factor of 25 percent. The inhalation rate of 0.83 m^3/hr for moderate activity is appropriately utilized for the inhalation exposure. For non-carcinogenic effects, exposure is averaged over the product of the exposure duration (in years) times 365 days per year. The exposure duration of 25 years is assumed for evaluating noncarcinogenic effects of the industrial worker. The length of time that the excavation worker may be in contact with soils is considered to be a long-term, or chronic (greater than 7 years) exposure.

2.5.3 Chemicals of Potential Concern for the Soil Removal Action

Previous investigations identified the compounds in Tables 2-2 and 2-9. Chemicals of potential concern were identified and reported in the December 8, 1995, *Design Technical Memorandum* (1995). The chemicals of concern were identified based on the general types of chemicals described in the Administrative Order on Consent and the analytical results of historical sampling of groundwater and soil.

These chemicals of concern were limited to 22 volatile organic compounds which had been detected in soil and/or groundwater.

Consistent with the sampling plan specified in the *Design Technical Memorandum*, soil samples were collected and analyzed for VOCs, SVOCs, and RCRA metals. Results were reported in the *Soil Data Report* (1996) and are summarized in Sections 2.3 and 2.4 of this report. Three SVOCs were detected, two in one sample (SB-5, fluoranthene and pyrene), and one in SB-26 (diethylphthalate). These compounds occurred only in these locations and are of no direct consequence to this risk evaluation.

For the purposes of this streamlined risk evaluation, chemicals of concern for inclusion in the risk evaluation were selected based on the criterion of a single occurrence of a VOC above detection limits in the soil sampling results of the April 1996 soil sampling event. The chemicals of concern are listed in Table 2-9.

TABLE 2-9
CHEMICALS OF CONCERN FOR THE GRANVILLE SOLVENTS SITE

1,1,1-Trichloroethane	Carbon disulfide
1,1,2-Trichloroethane	Chlorobenzene
1,1-Dichloroethane	Chloroform
1,1-Dichloroethene	Ethylbenzene
1,2-Dichloroethene (cis)	Methylene chloride
1,2-Dichloroethene (trans)	Tetrachloroethene
1,2-Dichloroethene (mixture)	Toluene
2-Butanone	Trichloroethene
Acetone	Vinyl chloride
Benzene	Xylenes

2.5.4 Chemical Exposure Modeling

The chemical exposure concentration is the concentration of a chemical in soil that will be contacted by a receptor. The exposure concentration typically utilizes an average of the concentration that could be

contacted over an exposure period. However, to provide a conservative approach of estimating exposures in this streamlined risk evaluation, exposure concentrations are based on the maximum concentration of each parameter detected in soil. The use of maximum values as the exposure point assumes that concentrations will remain constant over the duration of exposure (i.e., up to 70 years). This assumption is conservative, given environmental fate processes such as dilution, attenuation, and biodegradation which would be expected to cause concentrations to decrease over time. Constituent concentrations may remain constant or decrease, but it is unlikely that they will increase.

Ambient air concentrations were also derived from maximum soil concentrations of the components based on the predictive modeling techniques of Baker and MacKay (1985, U.S. EPA, 1989), U.S. EPA Superfund Exposure Assessment Manual (U.S. EPA 1988), and Gifford & Hanna (1970), and Tennekes (1976). Given that the maximum concentrations detected were generally from samples collected below a depth of six feet, these ambient air concentrations are, again, conservative. Again, it should be noted that estimates of exposure concentrations in ambient air are modeled from soil assuming that concentrations will remain constant over the duration of exposure. As stated previously, this assumption is conservative, given that environmental fate processes such as dilution, attenuation, hydrolysis, volatilization, and biodegradation are expected to cause concentrations to decrease over time. The constituent concentrations utilized in the exposure evaluation are presented in Table 2-10. These concentrations represent the maximum concentrations detected in the entire depth of soils which were evaluated.

2.5.5 Risk Characterization

The risk characterization serves to provide a comparison of the exposure concentrations estimated and applicable toxicological or dose-response data developed for the chemicals of concern. The outcome of this comparison is used to determine whether the chemical concentrations detected in soil at GSS may be associated with adverse effects on the health of excavation workers and hypothetical future industrial workers potentially exposed to site-related chemicals. Adverse health effects are defined as carcinogenic risk (i.e., cancer) or noncarcinogenic hazard (i.e., kidney disease).

Information relevant to the carcinogenic and/or noncarcinogenic potential of the chemicals of concern is derived from laboratory research studies. U.S. EPA evaluates chemical-specific toxicity data to derive appropriate toxicity criteria or guidelines for the protection of human health. Carcinogenic and

TABLE 2-10
SUMMARY OF EXPOSURE CONCENTRATIONS

	Soil Maximum Concentration (a) (mg/kg)	Modeled Ambient Air Concentration (b) (mg/m^3)
1,1,1-trichloroethane	1.7	0.00426
1,1,2-Trichloroethane	0.012	0.000006
1,1-Dichloroethane	0.011	0.00013
1,1-Dichloroethene	0.007	0.00009
1,2-Dichloroethene (cis)	4.6	0.03
1,2-Dichloroethene (trans)	0.021	0.00014
1,2-Dichloroethene (total)	4.8	0.02
2-Butanone	0.014	2E-9
acetone	0.084	4E-8
benzene	0.014	2E-9
carbon disulfide	0.7	4E-7
chlorobenzene	0.027	5E-10
chloroform	0.002	1E-9
ethylbenzene	3.6	6E-8
methylene chloride	0.002	2E-9
tetrachloroethene	18	7E-7
toluene	0.34	2E-8
trichloroethene	11	2e-6
vinyl chloride	0.03	1E-7
xylenes (total)	44	7E-7

(a) Maximum soil concentrations based on analytical results provided in the Soil Data Report (M&E. December 20, 1996).

(b) Ambient air concentrations based on predictive techniques of Baker and MacKay (1985, U.S. EPA, 1989), U.S. EPA Superfund Exposure Assessment Manual (U.S. EPA 1988), and Gifford & Hanna (1970), and Tennekes (1976).

noncarcinogenic toxicity factors which have been derived for the chemicals of concern are provided in Table 2-11. Noncarcinogenic toxicity values are referred to as reference doses (RfD). Reference doses are levels of chemicals which are expected to be without adverse health consequences based on daily intake by a specified route of exposure. Carcinogenic toxicity values are referred to as cancer slope factors (CSF). The slope factor is an upper bound estimate of the dose-response curve for developing cancer per dose of chemical.

This risk characterization estimates the carcinogenic risks and the noncarcinogenic hazards which may be associated with the doses of chemicals experienced by an excavation worker and a hypothetical future on-site industrial worker.

Excavation Worker

The excavation worker is assumed to be involved in trenching activities on the GSS property for installation of some type of utility line, such as a sewer. Subsurface soils (greater than 4 feet) may be brought to the surface during digging and excavating for building foundations or utilities. Therefore, the excavation worker is assumed to have potential exposure to the full soil column (0 to 20 feet). However, the excavation worker is not likely to have extensive direct contact with soils, but would rely on the use of heavy machinery such as backhoes.

Industrial Worker

The hypothetical future industrial worker is assumed to have potential exposure to the full soil column also if excavated soils from redevelopment of the site are brought to the surface and used for regrading or landscaping of the site.

2.5.5.1 Evaluation of Non-Carcinogenic Hazards

The potential noncarcinogenic hazards were assessed quantitatively by evaluating exposure estimates with respect to available toxicity values (Table 2-11) for the chemicals of concern.

The potential for adverse noncarcinogenic effects from chemical exposure is expressed in terms of the hazard quotient (HQ). The hazard quotient is the ratio of the estimated dose, or exposure, which a human receives to the estimated dose level believed to be safe, the reference dose (RfD).

TABLE 2-11 TOXICITY VALUES FOR CHEMICALS OF POTENTIAL CONCERN AT GSS

	TOXICITY INFORMATION*									
	NONCARCINOGENIC RfDs						CANCER SLOPE FACTORS			
	ORAL RfD (mg/kg/day)		ADJUSTED ORAL (DERMAL) RfD (b) (mg/kg/day)		INHALATION RfD (mg/kg/day)		ORAL SLOPE FACTOR (mg/kg/day)-1	ADJUSTED ORAL (DERMAL) SLOPE FACTOR (a) (mg/kg/day)-1	INHALATION SLOPE FACTOR (mg/kg/day)-1	Oral Absorption Factor (c)
CHEMICAL	SUBCHRONIC	CHRONIC	SUBCHRONIC	CHRONIC	SUBCHRONIC	CHRONIC				(UNITLESS)
1,1,1-Trichloroethane	9.0E-02	NA	NA	NA	2.9E-01	2.9E-01	NA	NA	NA	1.0E+00
1,1,2-Trichloroethane	4.0E-02	4.0E-03	4.0E-02	4.0E-03	NA	NA	5.7E-02	5.7E-02	5.7E-02	1.0E+00
1,1-Dichloroethane	1.0E+00	1.0E-01	1.0E+00	1.0E-01	1.4E+00	1.4E-01	NA	NA	NA	1.0E+00
1,1-Dichloroethene	9.0E-03	9.0E-03	7.2E-03	7.2E-03	NA	NA	6.0E-01	7.5E-01	1.2E+00	8.0E-01
1,2-Dichloroethene (cis)	1.0E-01	1.0E-02	9.0E-02	9.0E-03	NA	NA	NA	NA	NA	9.0E-01
1,2-Dichloroethene (trans)	2.0E-01	2.0E-02	1.8E-01	1.8E-02	NA	NA	NA	NA	NA	9.0E-01
1,2-Dichloroethene (mixture)	9.0E-03	9.0E-03	8.1E-03	8.1E-03	NA	NA	NA	NA	NA	9.0E-01
2-Butanone	2.0E+00	6.0E-01	1.6E+00	4.8E-01	2.9E-01	2.9E-01	NA	NA	NA	8.0E-01
Acetone	1.0E+00	1.0E-01	1.0E+00	1.0E-01	NA	NA	NA	NA	NA	1.0E+00
Benzene	NA	3.0E-04	NA	2.7E-04	1.7E-02	1.7E-03	2.9E-02	3.2E-02	2.9E-02	9.0E-01
Carbon disulfide	1.0E-01	1.0E-01	8.0E-02	8.0E-02	3.0E-03	2.0E-01	NA	NA	NA	8.0E-01
Chlorobenzene	NA	2.0E-02	NA	1.6E-02	NA	5.0E-03	NA	NA	NA	8.0E-01
Chloroform	1.0E-02	1.0E-02	9.5E-03	9.5E-03	NA	NA	6.1E-03	6.4E-03	8.1E-02	9.5E-01
Ethylbenzene	1.0E-01	1.0E-01	8.0E-02	8.0E-02	2.9E-01	2.9E-01	NA	NA	NA	8.0E-01
Methylene chloride	6.0E-02	6.0E-02	4.8E-02	4.8E-02	8.6E-01	8.6E-01	7.5E-03	9.4E-03	1.6E-03	8.0E-01
Tetrachloroethene	1.0E-01	1.0E-02	1.0E-01	1.0E-02	NA	NA	5.2E-02	5.2E-02	2.0E-03	1.0E+00
Toluene	2.0E+00	2.0E-01	2.0E+00	2.0E-01	NA	1.1E-01	NA	NA	NA	1.0E+00
Trichloroethene	NA	6.0E-03	NA	6.0E-03	NA	NA	1.1E-02	1.1E-02	6.0E-03	1.0E+00
Vinyl chloride	NA	NA	NA	NA	NA	NA	1.9E+00	2.4E+00	3.0E-01	8.0E-01
Xylenes	NA	2.0E+00	NA	1.8E+00	NA	8.6E-02	NA	NA	NA	9.0E-01

NA - Toxicity values (RfD/CSF) not available from IRIS, HEAST, scientific literature, USEPA nor OhioEPA for risk evaluation.
H - Health Effects Assessment Summary Tables (HEAST)
I - Integrated Risk Information Service (IRIS)
N - National Center for Environmental Assessment (NCEA)
Sources: U.S. EPA, Integrated Risk Information System (IRIS) database accessed January 1996.
U.S. EPA Health Effects Assessment Tables (HEAST), Annual FY-1995 edition(Heast, 1995).
Note: Region IV default oral absorption factors were used when necessary and are as follows: VOCs - 0.80, SVOCs - 0.50, inorganics - 0.20.
(a) Adjusted oral toxicity values used for calculation of dermal risks.
Adjustment of an administered to an absorbed dose CSF: (Administered CSF)-1/(Oral Absorption Factor) = Absorbed Dose CSF
(b) Adjusted oral toxicity values used for calculation of dermal hazards.
Adjustment of an administered to an absorbed dose RfD: (Administered RfD) x (Oral Absorption Factor) = Absorbed Dost RfD
(c) Oral absorption factors from chemical-specific Toxicological Profiles, Agency for Toxic Substances and Disease Registry, U.S. Public Health Service.

The hazard quotient is calculated as follows:

$$HQ = DI/RfD \quad (1)$$

Where:

HQ	=	Hazard Quotient
DI	=	Daily Intake
RfD	=	Reference Dose

Once the hazard quotients for each chemical in each of the exposure pathways are determined, they are added together to calculate a total site non-cancer hazard index (HI). If the hazard index value is less than 1.0, it is believed the potential of non-carcinogenic injury is low. If the hazard index exceeds 1.0, potential of non-carcinogenic effects may exist.

The hazard quotients calculated for each of the chemicals of potential concern and excavation exposures considered in this streamlined risk evaluation are provided in Appendix A. These hazard quotients were then added together to calculate the total hazard index for the Site. The results of these calculations are summarized in Tables 2-12 and 2-13.

2.5.5.2 Evaluation of Carcinogenic Risks

The increased incidence of cancer from exposure to a chemical is described in terms of the probability that an individual will develop cancer as a result of that exposure. It is assumed that even a single incident of exposure has a life-long effect on the probability of developing cancer. Cancer is a general term for a collection of different diseases, with varying degrees of survivability. This evaluation, however, does not specify the type of cancer (i.e., malignant or benign) that may occur, nor does it specify the target organ or location of cancer that may result.

The probability, or risk value, is calculated by multiplying the average daily intake (DI) by the chemical-specific cancer slope factor (CSF). Because the probability of the incidence of cancer is assumed to occur over a lifetime, even for a single incident of exposure, the exposure is averaged over 70 years (25,550 days) for carcinogenic effects.

TABLE 2-12
SUMMARY OF RISK AND HAZARD CALCULATIONS
HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER

EXPOSURE TO CHEMICALS	EXCAVATION WORKER (SHORT TERM)			
	Matrix	Route	Risk	Hazard
	Soil	Ingestion	9E-09	0.0005
		Dermal	1E-08	0.0008
		Inhalation	1E-08	0.0002
	Total		4E-08	0.0014

TABLE 2-13
SUMMARY OF RISK AND HAZARD CALCULATIONS
HYPOTHETICAL FUTURE ADULT INDUSTRIAL WORKER

EXPOSURE TO CHEMICALS	INDUSTRIAL WORKER (LONG TERM)			
	Matrix	Route	Risk	Hazard
	Soil	Ingestion	2E-07	0.002
		Dermal	3E-06	0.04
		Inhalation	2E-06	0.001
	Total		5E-06	0.043

This risk value is calculated by multiplying the average daily intake (DI) by the carcinogenic slope factor for the chemical:

$$Cancer\ Risk = DI \times CSF \quad (2)$$

Risk estimates are presented as cancer risk per unit of population. For example, a risk estimate of 1E-04 is equivalent to one occurrence of cancer per 10,000 individuals in a given population.

The risk estimates calculated for each of the chemicals of potential concern and exposures considered in this risk evaluation are provided in Appendix A. The results of these calculations and the total carcinogenic risk estimate for the site are summarized in Tables 2-12 and 2-13.

2.5.5.3 Results

Excavation Worker

A total Site hazard index and risk estimate was calculated for the excavation worker. The total site noncancer hazard index was 0.001. The total Site cancer risk estimate for the excavation receptor was 4E-8. The findings of the excavation exposure evaluation indicated that the carcinogenic risks associated with maximum concentrations of volatile organic chemicals detected in soil is less than the U.S. EPA risk range of 1E-06 to 1E-04 and the noncancer hazard is less than the hazard criterion of 1. In other words, based upon the methodology utilized, the excavation worker's risk of acquiring any adverse health effects, either carcinogenic or noncarcinogenic, as a result of exposure to concentrations of chemicals evaluated in this streamlined risk evaluation is virtually nonexistent.

Industrial Worker

A total Site hazard index and risk estimate was calculated for the hypothetical future industrial worker. The total site noncancer hazard index was 0.043. The total Site cancer risk estimate for the excavation receptor was 5E-6. The findings of the hypothetical future industrial worker exposure evaluation indicated that the carcinogenic risks associated with maximum concentrations of volatile organic chemicals detected in soil is within the U.S. EPA risk range of 1E-06 to 1E-04 and the noncancer hazard is less than the hazard criterion of 1.XX Again, these risk results indicate that exposure to concentrations of chemicals identified in the soil at the GSS do not result in unacceptable adverse health effects, either

carcinogenic or noncarcinogenic, for an industrial worker based upon the methodology utilized in this risk evaluation.

2.5.6 Results of the Fate and Transport Modeling

The results of the risk evaluation for direct contact with soil demonstrate that concentrations of chemicals of concern remaining in soil meet the first objective of the AOC which requires that soil levels assure protection of human health. However, the second objective of the AOC which requires that no groundwater beneath the soils become contaminated above the groundwater no further action levels has not been attained. Therefore, the streamlined risk evaluation shifts from the protection of human health focus to protection of the environment by centering on the fate and transport of chemicals which can potentially migrate from soil to groundwater.

A *Groundwater Flow and Contaminant Fate and Transport Model Report* was submitted to the U.S. EPA on December 20, 1996 and is summarized below.

The primary objective of the modeling project was to provide a means for comparing remedial alternatives. The critical factor in the comparisons involved the interaction between the low permeability surface soils and the aquifer. The soils at the GSS site contain significant concentrations of chlorinated and other compounds that are slowly contributing dissolved phase solvents to the aquifer. Given the need to model the interaction between the soils and the aquifer, a numerical model was chosen. This type of interaction can be effectively handled with a numerical model, but is beyond the capabilities of analytical models.

MODFLOW was chosen as the numerical flow model for this project. MODFLOW is the standard numerical groundwater flow model commonly in use today. It has been thoroughly tested and widely accepted by industry, consultants, and the regulatory community. Visual MODFLOW, a graphical interface for MODFLOW, MODPATH, and MT3D, was used for importing data to the model and graphically portraying the results.

MODPATH was also used for establishing flowpaths within the model and establishing times of advective travel along the flowlines. A program known as MT3D[96] was used for contaminant fate and transport

modeling. This newly updated fate and transport code incorporates the features of the older versions of MT3D with new options and algorithms to facilitate more complex simulations.

MODEL DESCRIPTION

The procedures used to implement the models and the specific parameters chosen are described in detail in the *Groundwater Flow and Contaminant Fate and Transport Model Report* (December 20, 1986), and is briefly described here.

The procedures used to implement the models and the specific parameters chosen for the initial set-up of the model are described.

The model grid encompasses an area of approximately 2 square miles surrounding the GSS. The area away from the pumping centers was gridded in 250 feet cells. Within the pumping centers the grid was refined to cells with width and length of 50 feet.

The model was divided vertically into 10 layers. The upper five layers depict the clay rich soil overlying the aquifer and were given identical input parameters due to the relative homogeneity of the soils (determined based on the results of the soil sampling program at the site). The reason for dividing the clay soil into separate layers was to provide a higher level of resolution for soil contaminant concentrations within the soil column. The lower five layers of the model represent the soil and gravel of the buried valley aquifer.

Two types of aquifer boundary conditions, no-flow and constant head, were used in modeling the aquifer system. No-flow boundaries were used at the bedrock walls of the buried valley system. The bedrock is composed of the Raccoon Shale, which is of very low permeability, compared to the highly permeable sand and gravel of the buried valley aquifer. For this reason, it was appropriate to designate the bedrock walls as no-flow boundaries in the model.

The location of the bedrock walls was based on area topography, a bedrock surface map, oil and gas exploration borings, and the experience of M&E staff geologists with this buried valley system. The floor of the main bedrock valley was also modeled as a no-flow boundary. Depth to the bedrock floor in the modeled region was established based on the bedrock map, available oil and gas exploration boring

logs, and borings completed as a part of the investigations at the GSS and the Granville wellfield. The bedrock surface was entered into the model as the bottom of model layer 10.

Constant head flow boundaries were arbitrarily established transverse to the main buried valley above and below the modeled area. This allowed flow into and out of the area through the aquifer. No information was available regarding the downvalley regional gradient in the buried valley beyond the pumping influence. The direction of flow of Raccoon Creek is from west to east, and it can be presumed that the regional gradient would also be to the east. However, in keeping with the decision to provide assumptions that increase the probability of the model predicting impact to the wellfield, constant head flow boundaries at the same elevation were chosen for the east and west boundaries of the valley. Under background (non-pumping) conditions, these levels would have resulted in no gradient either up or down the valley. Any background gradient in this system would probably be from west to east and tend to lessen the influence of the Granville wells on the groundwater flow at the GSS. The constant head flow boundaries are far enough from the pumping centers to have only minimal influence on model results.

Raccoon Creek flows through the central portion of the valley in most of the modeled area. The creek turns northward near the GSS and flows eastward in a course that lies just south of the site. This represents the closest approach of the creek to the site and the northern boundary of the buried valley system within the modeled area.

Raccoon Creek was not included in the model. The choice not to include the creek was based on information obtained from pumping tests which indicated that the creek does not interact significantly with the aquifer under pumping conditions (*Aquifer Pumping Test Report*, 1995). If interaction were present between the creek and the aquifer, the creek would be a losing stream through the modeled area based on relative water levels. Water added to the aquifer from the stream would tend to diminish the effects of the Granville wells on the aquifer beneath the GSS. Thus, excluding the creek from consideration in the model increased the probability of the model predicting impact to the wellfield from the GSS.

No-flow boundaries were used on all horizontal edges of layers comprising the clay-rich upper soils. Given the low permeability of these soils, the choice of boundary conditions in a regional model is insignificant. Constant head cells were also used vertically as the top layer of the clay soils to provide

a stable means of introducing recharge to the system. The use of a constant head boundary to represent recharge is discussed in detail below.

Wells for the Village of Granville were placed in the model at their appropriate locations within the modeled area and screened at the appropriate depths within the aquifer. The pumping rates for the wells for calibration runs were based on the rates reported for the 98 hour GSS pumping test. For model prediction runs, the overall pumping rate of the wellfield was distributed between the three supply wells according to their respective productive capacities (i.e., well PW-3 accounted for less production than wells PW-2 and PW-4). In practice, the wells are alternated and each well is pumped at a rate significantly exceeding Village demands. Pumping is therefore intermittent throughout the course of a given day. For the model, however, each well was assumed to pump at a constant rate, and the total pumping rate for the combined wells was matched to their average pumping rate. In keeping with the desire to remain conservative in the model set-up, the total pumping rate was assumed to be twice the current pumping rate for model predictions. The duration of the model runs was typically 30 years into the future. It was assumed that production of the wellfield would remain within a factor of two of the current average pumping rate throughout this 30 year period.

Recharge could not be stably implemented through the use of the MODFLOW recharge package because of the low permeability of the upper clay soil. However, the upper clay soil is known to be saturated from a few feet below the surface to the interface with the aquifer, based on soil moisture values obtained from Shelby tube samples collected during the soil investigation. Given this condition, a consistent gradient will be present through the clay soils to the aquifer interface. This condition was approximated using constant head boundaries at the surface which represent the "water table" within the clay soil. Recharge is largely independent of rainfall conditions. Rainfall in excess of the very low infiltration rate of the soils simply runs off the surface. The clay soil slowly transmits water between a constant head source at the level of saturation and a variable head sink at the interface with the aquifer.

Groundwater flow through the clay soils to the aquifer carries contaminants from the soils to the aquifer. Therefore, the proper representation of flow in the clay soils is essential for making valid predictions regarding how the soils interact with groundwater and bring new contaminants to the groundwater system. The subject of flow through the clay soils is addressed thoroughly in the sensitivity analysis of this model and in model runs comparing the remedial alternatives.

The transmissivity of the aquifer was established from pumping tests at the GSS using observation wells within the GSS and portions of the Granville wellfield. The transmissivity values were input into the model in terms of hydraulic conductivity values for each model layer within the aquifer. Based on boring logs at the GSS and the Granville wellfield, the lower portion is the most permeable part of the aquifer. Therefore, for the initial model set-up, the hydraulic conductivity of the lower two model layers was set higher than the conductivity of the upper three aquifer layers. The conductivities were chosen such that the combined transmissivity of the model layers matched the results of the pumping tests.

The hydraulic conductivity of the overlying clay soil layers was based on laboratory permeability tests of Shelby tube samples collected in the most recent soil sampling program. Twelve laboratory permeability tests were conducted. The hydraulic conductivity determined by these tests ranged from 1 x 10^{-8} to 9 x 10^{-8} cm/sec. However, it is not uncommon for laboratory permeability tests to underestimate the conductivity of a clay soil, and it is likely that the true permeability of these soils is somewhat higher than that shown by the tests. Thus, for the initial model the conductivity of the clay soil layers was set at 1 x 10^{-7} cm/sec.

As discussed above, the vertical flow of water through the clay soil layers is a critical factor in determining the results of the model. A degree of uncertainty in the hydraulic conductivity of these layers is inherent due to the difficulty involved in obtaining reliable conductivity values for low permeability soils. The conductivity value presented above was an appropriate value to enter as an initial estimate and represents the best data available. However, a wide range of conductivity values for the clay soils was evaluated as a part of the sensitivity analysis and a similarly wide range of values was taken to the final stage of the model where the alternatives were compared. As a result, the initial estimate of conductivity for the clay soils is of little consequence. Ultimately, the clay soils were treated in such a way as to maintain a high level of uncertainty in their rates of conductance and still provide meaningful comparisons of the alternatives.

For the layers representing the aquifer, the initial storativity and specific yield values were estimated from the GSS pumping test analyses. A 30 percent porosity was assumed, consistent with textbook values typically given for this type of aquifer.

For the clay layers, estimated values of porosity, storativity, and specific yield were used. The porosity of clay rich soils was estimated at 35 percent. The storativity was assumed to be 0.001 and the specific

yield as 0.01 percent. No reliable field method exists for determining storativity in low permeability soils. The specific yield used may appear relatively small in comparison to typical specific yield values for permeable soils. However, little water drains from low permeability clay-rich soils after they reach field capacity (the water holding capacity following gravity drainage). Water enters these surficial soils in response to rainfall, and is removed largely by evapotranspiration during the growing season. The transition between full saturation and field capacity represents the loss of only a very small amount of water in these soils, which is reflected by the low specific yield used in the model.

The soil and groundwater contaminant chosen for analysis in the MT3D model was trichloroethylene (TCE). The choice of this compound was consistent with providing the "worst case" comparison. Several contaminant compounds have been identified in field investigations at the GSS. These compounds include: trichloroethylene, tetrachloroethylene, 1,1,1-trichloroethane, trans-1,2-dichloroethylene, cis-1,2-dichloroethylene, 1,1-dichloroethylene, 1,1-dichloroethane, methylene chloride, chloroform, vinyl chloride, carbon disulfide, acetone, 2-butanone, r-methyl-2-pentanone, ethylbenzene, toluene, and xylene. Distribution of these contaminants in the aquifer and the overlying soils has been investigated and reported in the *Soil Data Report* (1996), and summarized earlier in this report.

TCE is the most highly concentrated and wide-spread compound in both the soil and groundwater at the GSS. It has a low permissible Maximum Contaminant Level (MCL) of 5 μg/L. Tetrachloroethylene (PCE) also has a MCL of 5 μg/L; however, the PCE is lower in concentration than TCE in both soils and groundwater, and PCE is retarded to a greater extent in the soils than is TCE. Based on this information, TCE represents the "worst case" compound for potential impact to the Village of Granville wellfield.

The initial concentrations of TCE assigned to the aquifer layers of the model were based on the concentrations analyzed at the GSS in the Hydropunch® study. This study was completed in 1994 and probably does not represent current concentrations after operation of the pump and treat remediation system for nearly two years. The GSS monitoring wells have shown a decline in TCE concentrations since pumping was started. However, the most complete analysis of the distribution of TCE in the aquifer was from the Hydropunch® study, and to increase the probability of the model predicting wellfield impact, these values were used in the model.

The TCE concentrations assigned to the clay soil layers of the model were based on a soil investigation in the Spring of 1996. Results of this investigation are reported elsewhere in this report. The sample depths in each boring were extrapolated to the level of the model layers. Where soil samples had not been taken directly at the elevation of a model layer, the samples taken above and below the given elevation were examined and the higher concentration of the two was used. The sample locations for each layer were plotted on a map and contoured to provide a concentration distribution for each layer, which was digitized and imported into the model. The closely spaced sampling points were extrapolated to the model grid with the overall concentration of TCE being conserved.

The boring program at the GSS involved a relatively close spacing of boring locations, and specialized techniques were used to detect DNAPLs. DNAPL was not detected. Moreover, the concentrations of solvents in the soils were low enough that DNAPLs are not expected to be present. Therefore, potential effects of DNAPL were not incorporated into the model.

However, it is rarely possible to conclude with certainty that DNAPLs are not present in a soil subject to free phase releases. While the potential presence of DNAPL was not directly analyzed by the model, it was considered qualitatively with respect to the scenarios presented below.

The adsorption and retardation of TCE by organic carbon in the soils was addressed in the model through the use of linear isotherms. The sorption constant for the clay-rich soils was input as 0.0428 ft^3/kg, and the bulk density of the soils was input as 58.2 kg/ft^3. The value for bulk density was based on an average of 12 samples collected in the soil sampling program. The sorption constant is a calculated constant, based on the organic content of the soil and the distribution coefficient of the contaminant. The average organic carbon content of the clay soils was 0.8 percent based on 21 samples from the soil boring program. The octanol/water partition coefficient for TCE is 152 mL/g. The sorption constant was then calculated from these data and entered into the model.

The sorption constant used for the aquifer soils was 0.00268 ft^3/kg. This sorption constant was calculated using an assumed bulk density of 56.5 kg/ft^3 and an assumed carbon content of 0.05 percent. The difference between the sorption constant for the aquifer soils and the clay-rich soils is due to the lower organic carbon content of the aquifer soils. The assumed organic carbon content of the aquifer (0.05 percent) is consistent for this type of aquifer soil. The effect of varying this assumed value is addressed

in the sensitivity analysis. Bulk density varies within a relatively narrow range and its variability has little effect on model outcome.

TCE does not degrade abiotically to any great extent. Some abiotic degradation has been cited in the literature, but these values have been called into question by more recent studies. It is now generally accepted that the abiotic degradation of TCE is slow enough to be neglected.

Biological degradation of TCE has been frequently reported. Such degradation occurs in conjunction with biological degradation of other hydrocarbons or under anaerobic conditions. Evidence of biological degradation is present at the GSS. Cis-1,2-dichloroethane (cis-1,2-DCA) is present in the aquifer near EW-1. Small concentrations of this compound were present during the initial studies and the concentrations have increased over time. Cis-1,2-DCA is only produced biologically from degradation of more highly chlorinated compounds.

Although clear evidence of biological degradation is available, there is no way to reasonably quantify the degradation rate. A small degradation constant could have been justified for the model given the site evidence. However, the assumption of no degradation was entered into the model to increase the probability of the model predicting impact to the Granville wellfield.

Reliable values of dispersion and diffusion are rarely available for input to a fate and transport model. Occasionally the values can be backed out of fate and transport calibration procedures when a great deal is known about the nature, timing, and duration of a chemical release. For this site, this level of detail about releases was not available. An assumed value of 10 feet was used for longitudinal dispersivity. The transverse dispersivity was assumed to be ten percent of the longitudinal dispersivity and the vertical dispersivity was assumed to be 1 percent of the longitudinal dispersivity for the aquifer and ten percent for the upper clay soils. These values all represent assumptions which are reasonable for the conditions at the GSS and are in line with common practice.

Site-specific values for molecular diffusion were not available. This is nearly always true in site investigations, and this parameter is not generally considered to be significant. A literature value of 9.3 x 10^{-5} ft^2/day (1 x 10^{-7} cm^2/sec) was used for all model layers. The effects of varying this value are addressed in the sensitivity analysis in Section 5.

MODELED ALTERNATIVES

The model was developed as a means to predict the impact of the Site soils on the groundwater beneath the Site and to aid in the evaluation of options for the remediation of impacted soils. The model was used to evaluate four general alternatives: no action, maintenance pumping, soil remediation to 1,000 μg/kg, and soil remediation to 5,000 μg/kg total VOCs.

No Action

This alternative is presented only for comparison. The alternative involves an end to pumping from extraction wells at the GSS and the movement of contaminated groundwater toward the Granville wellfield. The calibrated model, with the upper clay soil vertical conductivity set at 0.028 ft/day was used for the initial simulation. The initial concentrations of TCE used for the aquifer in the calibrated model were based on two-year-old sampling data for the aquifer. Given that the pump and treat system has removed some of the TCE mass in two years of operation, the plume generation indicated for this scenario is probably overestimated. Actually, this simulation more closely approximates conditions where no treatment system had been installed at the GSS.

The results of this simulation indicated the arrival of groundwater above 5 μg/L in TCE concentrations at Granville wellfield (well PW-2) within 6 years. The TCE impact (above 5 μg/L) spreads to well PW-3 and continues through the 30 year period of the simulation. Well PW-4 was not impacted in this simulation, because wells PW-2 and PW-3 intercepted the plume. Realistically, if wells PW-2 and PW-3 were to become impacted, those wells would be sequentially shut down and well PW-4 would become impacted.

Maintenance Pumping

The calibrated model was used to evaluate the alternative in which extraction well EW-2 is pumped at 320 gpm for 5 years and then pumped at a maintenance level of 40 gpm for an additional 15 years. Flux from the clay soils to the pumping well was allowed over the entire model run. This alternative was evaluated at each of three vertical hydraulic conductivity values for the upper clay soils. The values were varied by two orders of magnitude from 1 x 10^{-5} cm/sec to 1 x 10^{-7} cm/sec. These conductivity values are assumed to cover reasonable level of uncertainty for this type IV parameter.

The simulation using a vertical hydraulic conductivity in the upper soils of 1 x 10^{-5} cm/sec resulted in no regeneration of the 5 μg/L plume after pumping ceased in 20 years. Only a small mass of TCE remained in the upper clay soils after 30 years. The maximum TCE concentration in the pore water of the clay soil was 60 μg/L after 20 years and declined to 18 μg/L after 30 years.

The simulation using a vertical hydraulic conductivity for the upper clay soils of 1 x 10^{-6} cm/sec resulted in slight plume regeneration after 20 years of pumping. The maximum horizontal extent of the 5 μg/L plume was 125 feet from the edge of the impacted clay soil and remained within the bounds of the GSS. The maximum depth of the 5 μg/L plume was 885 feet amsl or about 15 feet below the top of the aquifer. After 20 years, the maximum TCE concentration in the upper clay soil pore water was 200 μg/L. After 30 years the maximum concentration had declined to 160 μg/L.

The simulation using a vertical hydraulic conductivity in the upper clay soils of 1 x 10^{-7} cm/sec (approximately the value obtained from the laboratory vertical permeability tests) resulted in a slight plume regeneration after 30 years. The maximum extent of the 5 μg/L plume was approximately 90 feet. However, a relatively large concentration of TCE remained in the soils after 30 years (1,600 μg/kg). To ensure that the plume would not extend farther after 30 years, the simulation was continued to 60 years. The maximum plume extent after 32 years was 105 feet, and its maximum depth was to elevation 889 feet amsl, or about 11 feet below the top of the aquifer. At 60 years in the simulation, the maximum TCE concentration was 1,000 μg/kg in the upper clay soils.

The range of values for vertical conductivity of the upper clay soils was sufficient to include all reasonable outcomes on which to base conclusions. Conductivities higher than 1 x 10^{-5} cm/sec would result in no plume regeneration at 20 years due to the small TCE mass remaining in the clay soils after 20 years of leaching. Conductivities lower than 1 x 10^{-7} cm/sec would result in little or no plume generation due to the very slow addition of TCE from the upper clay soils. The plume resulting from simulation with a vertical conductivity of 1 x 10^{-6} cm/sec for the upper clay soils was the largest for the three simulations and represents the worst case scenario for these alternatives. That scenario resulted in a small plume that remained confined to the GSS property.

The affects of potential DNAPLs on the outcome of this scenario could be significant. The affect on each of the three simulations would be to provide more TCE mass in the soil at the end of the 20 year period. In all simulations, this would result in the generation of a larger plume.

Soil Remediation to 1,000 μg/kg TCE

This alternative involved soil treatment or removal for soils with TCE concentrations greater than 1,000 μg/kg. When deep soils are treated or removed, the soils above them were assumed also to be treated, even if the shallower soils had TCE concentrations less than 1,000 μg/L. Thus, while soils at 15 feet below the ground surface were assumed treated or removed to the 1,000 μg/kg level, shallower soils were typically treated to lower levels. Approximately 6,000 cubic yards of soil were estimated to have been treated or removed for this alternative.

This alternative included the pumping of EW-2 at 320 gpm for 5 years. This is the assumed time period required to remove the groundwater contaminant plume. After 5 years, EW-2 was shut off without maintenance pumping. This alternative was evaluated for each of four vertical hydraulic conductivity values for the upper clay unit. The values ranged greater than two orders of magnitude from 5×10^{-5} cm/sec to 1×10^{-7} cm/sec. The range of conductivity values were assumed to span any reasonable range of uncertainty in this type IV parameter.

The simulation with the vertical conductivity if the upper clay soil of 5×10^{-5} cm/sec resulted in no plume generation. Essentially all of the TCE contained in the soils was leached by the time the pump was turned off in five years. The maximum TCE concentration in water in the clay soil at five years (end of pumping) was 2 μg/L. This conductivity value is not realistic for these soils but it provides an upper limit for the TCE leaching and demonstrates that higher conductivities are not an issue for potential impact to the wellfield.

The simulation with a vertical conductivity of the upper clay soil of 1×10^{-5} cm/sec resulted in a small 5 μg/L plume after five years. The maximum extent of the plume was 90 feet from the source, within the property of the GSS. The maximum depth of the plume was 893 feet amsl, or 7 feet below the top of the aquifer. These values were for 10 years, or five years after pumping stopped. The maximum TCE concentration in water in the clay soil after 10 years was 40 μg/L. At 20 years, the maximum concentration was 16 μg/L, and at 30 years it was 6 μg/L.

The simulation with a vertical conductivity for the upper clay soils of 1×10^{-6} cm/sec resulted in no generation of a 5 μg/L plume. The maximum TCE concentration in water in the clay soils at 10 years was 140 μg/L. At 20 years the maximum was 100 μg/L, and at 30 years it was 80 μg/L.

The simulation with a vertical conductivity for the upper clay soils of 1 x 10^{-7} cm/sec also resulted in no plume generation. The maximum TCE concentrations remaining in the water in the clay soil were 180 μg/L after 10 years, 160 μg/L after 20 years, and 140 μg/L after 30 years.

A worst case model result for this alternative is a plume extending approximately 90 feet from the source. This is not an off-site plume, and the plume would have to expand approximately 15 times this distance to impact the nearest active well in the Granville wellfield (PW-2).

The affects of the potential presence of DNAPLs for this scenario are minimal. Treating all soils with TCE concentrations greater than 1,000 μg/kg should remove any potential source areas with DNAPLs. If DNAPLs were present in the clay soil they would be associated with high soil concentrations. Areas with high TCE concentration were identified in the soil investigation and would be treated as part of this alternative.

Soil Remediation to 5,000 μg/kg TCE

For this alternative, all clay soils with TCE concentrations greater than 5,000 μg/kg were assumed to have been removed by excavation or treated by other methods to remove the contaminant. When deeper soils were treated, the soils above them were also considered to be treated, even if the shallower soils had TCE concentrations less than 5,000 μg/kg. Thus, while soils, at 15 feet below the ground surface, were treated to the 5,000 μg/kg level, shallower soils were typically treated to levels closer to 1,000 μg/kg. About 3,000 cubic yards of soil were estimated to have been treated or removed.

This alternative also included the pumping of extraction well EW-2 at 320 gpm for 5 years. This is the assumed time period required to remove the contaminant plume from the aquifer. After 5 years, EW-2 was shut off without maintenance pumping. This alternative was evaluated at each of four vertical hydraulic conductivity values for the upper clay soils. The values ranged from 5 x 10^{-5} cm/sec to 1 x 10^{-7} cm/sec. The range in upper clay soil vertical conductivity values was assumed to cover any reasonable range of uncertainty in this type IV parameter.

The simulation with the vertical conductivity of the upper clay soil of 5 x 10^{-5} cm/sec resulted in no plume generation. Essentially all of the TCE contained in the clay soils was removed by the time the pump was turned off after five years. The maximum TCE concentration in the pore water of the clay soils after five years was 5 μg/L. This high conductivity is probably not realistic for the clay soils, but

it provides an upper limit for TCE leaching and demonstrates that higher conductivities are not an issue for potential impact to the wellfield.

The simulation of 1 x 10^{-5} cm/sec in the upper clay soils resulted in a small 5 μg/L plume after five years. The maximum extent of the plume was 280 feet from the soil source. This is beyond the property of the GSS. The maximum depth of the plume was 881 feet amsl, or 19 feet below the top of the aquifer. These maximum values were obtained at 10 years (or five years after the pumps had been turned off). The maximum TCE concentration in the clay soil pore water at 10 years was 100 μg/L. At 20 years, the maximum concentration was 35 μg/L, and at 30 years it was 12 μg/L. Thus, with this relatively high conductivity for the upper clay soils, a small plume was generated but the maximum extent of the plume was just beyond the property boundaries and the plume receded after 10 years.

The simulation with a vertical conductivity for the upper clay soils of 1 x 10^{-6} cm/sec resulted in no development of a 5 μg/L plume. The maximum TCE concentration in the clay soil pore water after 10 years was 200 μg/L. After 20 years the maximum was 180 μg/L, and after 30 years it was 140 μg/L.

The simulation with a vertical conductivity in the upper clay soils of 1 x 10^{-7} cm/sec (closest to the laboratory permeability values) also resulted in no plume generation. The maximum TCE concentrations remaining in the clay soil water were 450 μg/L after 10 years, 350 μg/L after 20 years, and 300 μg/L after 30 years.

A "worst case" model result for this alternative is a plume generation of approximately 280 feet from the contaminant source. This does represent an off-site plume, but it does not come close to impacting the Granville wellfield. The plume would have to extend to five times this distance to impact the nearest well in the wellfield (PW-2).

The affects of the potential presence of DNAPLs for this scenario are minimal. Treating the soil to a level of 5,000 μg/kg should remove any potential source areas with DNAPLs. The presence of DNAPLs in the clay soil would be associated with high concentration soils; these soils have been identified in the soil investigation and would be treated as part of this alternative.

MODELED ALTERNATIVES EVALUATION

Of the four alternatives evaluated, only the no action alternative is unacceptable. This conclusion is based on evaluation of the alternatives using a calibrated groundwater flow model combined with a contaminant fate and transport model. The sensitivity of the model was thoroughly evaluated prior to simulating the alternative scenarios. The primary parameter with type IV sensitivity was the vertical hydraulic conductivity of the impacted upper clay soils. The uncertainty introduced by this parameter was carefully controlled as part of the simulation of alternatives.

The affects of potential residual DNAPLs in the upper clay soil were not directly evaluated by the model. However the potential presence of DNAPLs was evaluated qualitatively outside of the modeling effort for each alternative. It was determined that maintenance pumping to year 20 with no active soil remediation was relatively sensitive to potential DNAPLs, while TCE clean-up to 1,000 μg/kg and 5,000 μg/kg levels, respectively, are not likely to be sensitive to residual DNAPLs.

There is no apparent reason to choose to remediate the soils to the 1,000 μg/L levels rather than 5,000 μg/L. Part of the reason for this is that some clay soil with TCE concentrations less than 5,000 μg/L would have to be treated or removed in the process of treating or removing 5,000 μg/kg clay soils at depth. Soils in the upper five feet would be effectively treated to levels of 1,000 μg/kg. Overall, the additional removal or treatment of 3,000 cubic yards of soil to go from alternative 3 to alternative 4 does not seem to be justified.

SUMMARY

Soil remediation to the total VOC level of 5,000 μg/kg remains protective of human health. The results of the risk characterization for the excavation worker and hypothetical future industrial worker demonstrated that chemicals of concern in soil that were at least twice the proposed soil remediation level of 5,000 μg/kg were not associated with unacceptable risk. Therefore, the risk associated with 5,000 μg/kg would be acceptable as well.

The conclusion drawn from the model results indicate that the no action alternative would allow compounds presently in the Site soils to migrate into the wellfield at concentrations above the no further action levels. Maintenance pumping involves the use of GSS-EW2 at relatively high flow rates for a

period of 5 years and a reduced rate for a period of 15 years. The evaluation of this modeled alternative concluded that over time the groundwater concentration would be reduced to concentrations below the no further action levels. The model results are relatively sensitive to the potential for higher concentrations or non-aqueous phase liquids which might require longer-term pumping.

The model was used to simulate the removal of contaminants that exceed concentrations of 1,000 μg/kg. The results of the model simulation were interpreted to indicate that the groundwater concentrations would not exceed the no further action levels. Because the soil contaminants exceeding a concentration of 1,000 μg/kg were removed, the potential effects that might be caused by unknown higher concentrations or non-aqueous phase liquids are minimized.

The model was also used to simulate the removal of contaminants that exceed concentrations above 5,000 μg/kg. The interpretation of the model results for the removal of soil contaminants above a concentration of 5,000 μg/kg is that it will have essentially the same effect as the removal of soil contaminants with concentrations above 1,000 μg/kg.

The conclusion drawn for the modeling effort is that the removal of soil contaminants to concentrations 5.000 μg/kg or less will meet the requirements of the Administrative Order to "Treat soils, ...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." (Section V.2.g).

2.5.7 Summary of Risk Evaluation and Removal Action Goals for the Treatment of Impacted Soils

The streamlined risk evaluation for the GSS evaluated the potential significance of contact with volatile organic chemicals in soils on the property. Analytical soil data generated during the April 1996 Site investigation were used to select the chemicals of concern and maximum concentrations of those chemicals to quantitatively estimate exposures to people who may feasibly come into contact with the soil on Site.

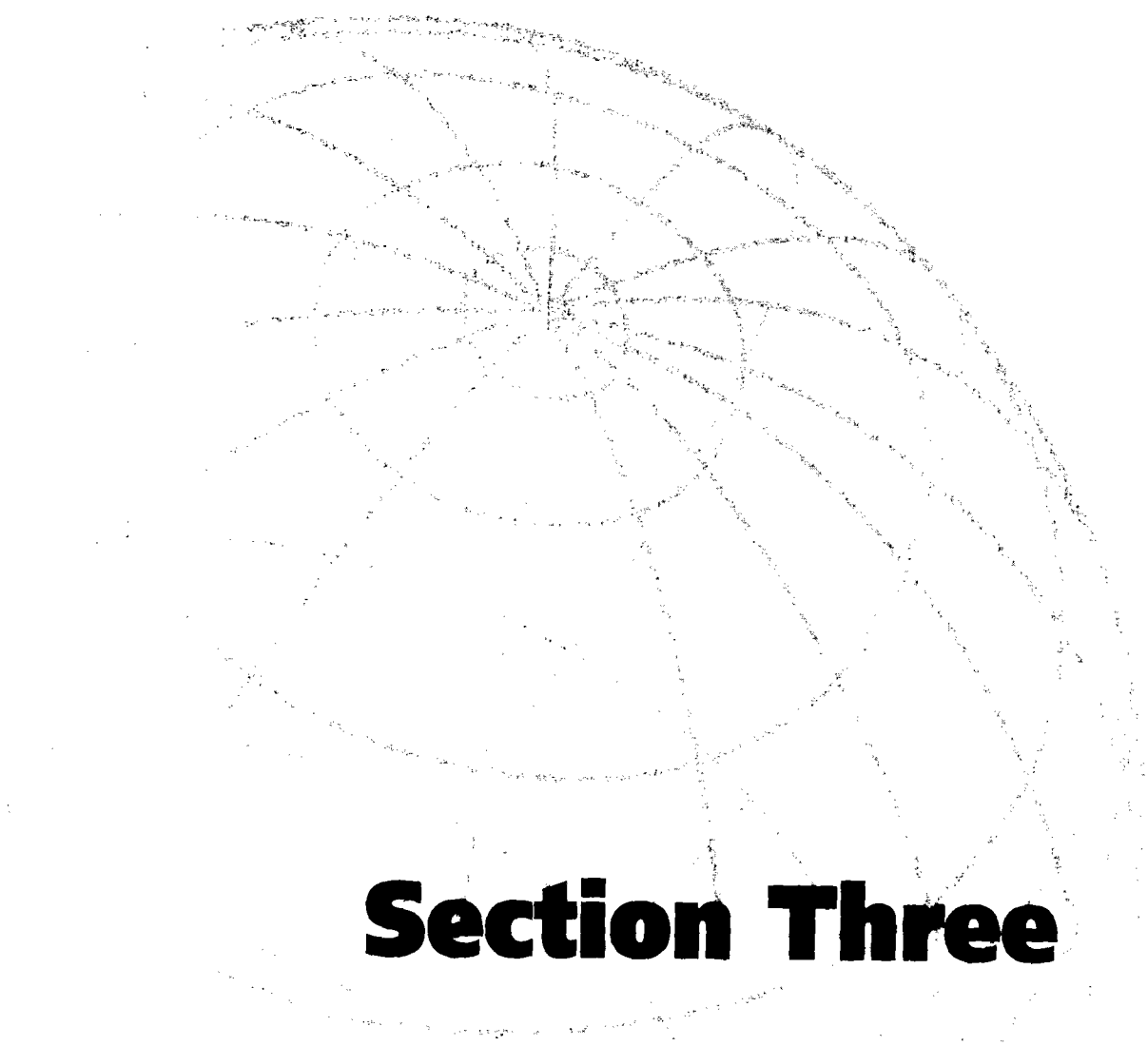
One group of potentially exposed individuals could be identified as being likely receptors to come into contact with Site soils at GSS, namely, excavation workers who excavate utility corridors on the Site. However, because the site is zoned industrial and is located near other industrial sites, a hypothetical future industrial worker was also identified as being a remote potential receptor.

The methods used to estimate the intake of chemicals from soil on the GSS incorporated assumptions and variable values which are consistent with U.S. EPA and Ohio EPA guidance documents.

The estimated risks from direct contact (ingestion, dermal contact, and inhalation) with chemicals in the soil were of a very low order of magnitude for both carcinogenic and noncarcinogenic health effects.

Based upon the results of this streamlined risk evaluation, maximum concentrations of the volatile organic chemicals detected in GSS soil are not associated with an excess carcinogenic risk or adverse health effect. It is not necessary to take action for these exposures. Therefore, Removal Action Goals for the treatment of impacted soils based on an excavation scenario and industrial scenario were not derived.

The human populations, individuals, or receptors who could feasibly be exposed to chemicals from the site are key to the process of developing the Removal Action Goals. As stated in the text above, direct contact with soil for the feasible receptors at the GSS is not associated with adverse health effects. Thus, the Removal Action Goal was developed to provide protection from groundwater assuming that chemicals in soil have the potential to migrate to groundwater and be transported in groundwater to a receptor point. Therefore, to be protective of groundwater while continuing to be protective of human health, soil contaminants with total VOC concentrations above 5,000 μg/kg will, if removed, more quickly and permanently protect groundwater beneath the Site. Therefore, the Soil Treatment Goal for total VOCs in Site soils is 5,000 μg/kg.



Section Three

3.0 IDENTIFICATION OF REMOVAL ACTION OBJECTIVES

3.1 STATUTORY LIMITS

No statutory limits have been identified.

3.2 DETERMINATION OF REMOVAL ACTION SCOPE

The scope of the Removal Action is defined by the Administrative Order, Section V.2(g). The scope is defined by the following orders:

1) *"By December 20, 1994, install and run a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield. Treat and discharge all extracted water as required by the Work Plan and this Order."*

2) *"In addition, implement action which is necessary to ensure that any water contaminated with any contamination (originating from the Site) that enters the Village of Granville municipal wellfield drinking water supply meets all risk-based and all applicable federal and state drinking water standards. Such action may include utilization of, modification to, and/or addition to the Village of Granville municipal wellfield drinking water supply system. (For example, such action may be, or include, wellhead treatment which meets the performance standards of this Order; or, may be, or include, the installation of an appropriate alternative water supply.) Such action shall be implemented at the Village of Granville municipal wellfield to the extent necessary both to reinstate fully the capacity of PW-1 prior to its reactivation and to the extent necessary to prevent any loss in the Village of Granville municipal wellfield drinking water supply capacity (i.e., the collective capacity of PW-1, PW-2, and PW-3) caused, in whole or in part, because of contamination (originating from the Site), or the threat thereof, entering the Village of Granville municipal wellfield water supply."*

3) *"Design, install, and operate a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield and shall treat all groundwater within the contamination plume*

originating from the Site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARS."

4) *"Treat the soils at the Site to levels which will assure protection of human health and the environment, to levels which will attain all risk-based standards and federal and state ARARs, and to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels. Respondents shall propose a schedule to develop soil treatment objectives, no further action levels, performance monitoring parameters, and a plan for treatment of the soils, in the draft Work Plan."*

3.3 DETERMINATION OF REMOVAL ACTION GOALS

As described in Section 2 of this document, the Removal Action Goals for the treatment of impacted soils that will meet the stated requirements have been developed by modeling the fate and transport of compounds detected in the subsurface soils at the Site, and characterizing the risk posed by the residual compounds in Site soils. The Remedial Action Goal for treatment of impacted soil is treatment of soil containing total VOCs that exceed 5,000 μg/kg.

3.4 DETERMINATION OF REMOVAL ACTION OBJECTIVES

The proposed removal action objectives are as follows:

- Reduce the mass of contaminants present in the subsurface soil by the application of an alternative that will address the soils which exceed approximately 5,000 μg/kg of the total VOCs.

- Maintain a groundwater contaminant and removal system such that impacted groundwater exceeding action levels does not migrate into the Village of Granville wellfield.

- Maintain a groundwater contaminant and removal system such that compounds present in the subsurface soil that remain following the removal action on the soil do not impact the groundwater, to the extent practicable; above groundwater no further action levels.

- Enhance the groundwater removal system to more effectively and efficiently remove contaminant mass from the groundwater.

3.5 DETERMINATION OF REMOVAL ACTION SCHEDULE

The proposed schedule for the removal action is presented on the following table[1].

Activity	Number of Calendar Days Following Completion of Previous Activity
1. Submit EE/CA	0
2. Meet with U.S. EPA	30
3. Submit Final EE/CA After Receipt of Comments	90
4. Receive Final Approval	30
5. Public Meeting	30
6. Respond to Public Comments	30
7. Notice to Proceed to Construction	
8. Commence Construction	
9. Commence Operation	
10. Removal Action Completion	

[1] Subject to weather, equipment availability, and other *force majeure* events.

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Section Four

4.0 IDENTIFICATION AND ANALYSIS OF REMOVAL ACTION ALTERNATIVES

Previously, M&E had evaluated a wide range of technologies that might be effective in meeting the requirements of the AOC. This work has been summarized in the *Design Technical Memorandum* (1995). As a result, several technologies have been eliminated and five have been carried forward for consideration. These alternatives fall into two broad categories: no action and soil contaminant removal with groundwater treatment. For those alternatives with soil contaminant removal, the Removal Action Goals have been determined based on contaminant fate and transport modeling which has been described in Section 2. Below is a brief description of each alternative, followed by an analysis of these alternatives.

4.1 IDENTIFICATION OF ALTERNATIVES

4.1.1 Alternative 1 - No Action

The "No Action" alternative would involve taking no action on the impacted soil detected at the Site and allowing natural leaching and degradation of the compounds present. Additionally, the current groundwater pump and treat system would be maintained and operated at its present status for a period of three years, and at a lower maintenance level for at least 17 additional years.

This alternative does not provide overall protection of human health and the environment, does not comply with ARARs, does not provide long-term effectiveness or permanence, nor does it provide short-term effectiveness. *This alternative is retained in this analysis only as a means to provide a baseline* against which other alternatives are compared and to be consistent with applicable regulatory guidance.

4.1.2 Alternative 2 - Soil Removal by Excavation and Disposal

Alternative 2 consists of the excavation and off-site disposal of soil based on the contaminant fate and transport modeling described in Section 2.5. Soils impacted by total volatile organic compounds in concentrations in excess of 5,000 μg/kg would be removed by excavating and disposing these materials off-site. These soils are generally located beneath the area currently occupied by the warehouse building at depths of greater than six feet to the water table. The estimated volume of this material is

approximately 8,000 yd^3. To excavate the material, sheet piling would be installed to eliminate the need to remove additional material.

The current groundwater pump and treat system would be modified by the addition of a new extraction well, GSS-EW3, located near current monitoring well P-1 as described in the *Fate and Transport Modeling Report* (1996). This well would be screened to intercept the more highly impacted groundwater near the surface of the water table. This system would operate for approximately five years, after which time GSS-EW3 would extract at a maintenance pumping rate for a period of five years to capture leaching of residual soil contamination over that period of time.

The groundwater monitoring program is anticipated to be maintained at its current level and at a reduced level for a period of 10 years prior to closure.

4.1.3 Alternative 3 - *In-Situ* Mixing/Hot Gas Vaporization of Soil Areas

Alternative 3 consists of the removal of soil contaminants by soil mixing and hot gas vaporization. The soil area is the same as described in Alternative 2. Soils overlying this area would be treated incidentally by this method resulting in a total volume of 8,000 yd^3 of soil treated.

The groundwater pump and treat system would be modified and operated as described in Alternative 2. In addition. the groundwater monitoring program is expected to be the same as in Alternative 2.

4.1.4 Alternative 4 - Treatment of Soils by Pneumatic Fracturing and Soil Vapor Extraction

Alternative 4 would consist of the removal of the contaminants by the use of soil vapor extraction enhanced by pneumatic fracturing. The soil area is the same as previously described in Alternative 2. The soils overlying the area are expected to be remedied by induced airflow from the SVE system.

The groundwater pump and treat system would be modified and operated as described in Alternative 2. The groundwater monitoring program is expected to be as described in Alternative 2.

4.1.5 Alternative 5 - Treatment of Soils Via Thermally Enhanced Soil Vapor Extraction (Shell Process)

Alternative 5 would consist of the removal of contaminants by the application of an innovative technology that heats the soil with electrodes, draws a vacuum on the electrodes to recover and destroy the contaminants, while the formation desiccates, causing increased air permeability. The area is the same as described in Alternative 2.

The pump and treat system would be modified and operated as described in Alternative 2. The groundwater monitoring program would be expected to be maintained as described in Alternative 2.

4.2 ANALYSIS OF REMOVAL ACTION ALTERNATIVES

This section provides a comparative analysis of the Removal Action Alternatives in tabular form and a cost analysis, also in tabular form. Section 4.2.1 consists of a series of five tables that identify, evaluate the effectiveness and implementability, and estimates the cost of each alternative.

4.2.1 Comparative Analysis

The comparative analysis is provided in Tables 4-1 through 4-5. Each alternative is evaluated as to its anticipated effectiveness based on the following criteria:

1) Overall protection of human health and the environment;
2) Compliance with ARARs and other criteria, advisories, and standards;
3) Long-term effectiveness and permanence;
4) Reduction of toxicity, mobility, and volume through treatment; and
5) Short-term effectiveness.

Implementability is evaluated based on the following criteria:

1) Technical feasibility;
2) Administrative feasibility;
3) Availability of services and materials;

4) State acceptance; and

5) Community acceptance.

4.2.1.1 Alternative 1 - No Action

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

If no action for removal or treatment is taken on contaminants in the soils, natural leaching and degradation of the contaminants would ultimately lead to their disappearance from the site soils. Soil contaminants would continue to migrate into the groundwater beneath the site and be collected by the groundwater treatment system. Established cleanup levels would not be achieved, nor would there be compliance with AOC requirements.

Extraction and treatment of Site groundwater would be necessary at the current rate for at least 3 years and at a lower rate for approximately 17 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

No treatment measures would be taken to reduce soil contaminant concentrations. Natural leaching of the chemicals and degradation would bring contaminant levels in the soils below established cleanup levels over time. However, this alternative does not comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Moreover, the alternative does not comply with the AOC requirement for treating "...all groundwater within the contamination plume originating from the site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARs."

Long-Term Effectiveness and Permanence:

There would ultimately be no residual risk for the soils if the soil contaminants are left to naturally degrade and leach into the groundwater. Residual risk for the Site groundwater would continue over the long-term because the soil contaminants would continue to contribute to the Site groundwater contamination. Thus, in the long term, the no action alternative would not be effective or permanent.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

No treatment of soil contaminants is provided under the no-action alternative, but the natural processes of leaching and degradation would, over time, transfer soil contaminants into the groundwater. Because there would be a transfer of contaminants into another more mobile medium, there would be increases in toxicity, mobility, and volume for that medium.

Short-Term Effectiveness:

The absence of any remedial action for the soil under the no-action alternative indicates that no short-term impacts to the community or the environment will occur because there is no implementation. Contaminants leaching from the soil will ultimately increase the potential impacts from the groundwater.

IMPLEMENTABILITY

Technical Feasibility:

No technical feasibility considerations exist in the absence of any measures being taken to treat or remove the contaminants.

Administrative Feasibility:

Administrative difficulties are anticipated because no proactive measures would be taken to reduce contaminant levels below established cleanup levels, and AOC requirements to perform treatment will not be followed.

Availability of Services and Materials:

Availability of services and materials is not an issue for the no-action alternative, based on the absence of any protective measures taken to treat or remove the contaminants.

State Acceptance:

State acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established cleanup levels and AOC requirements will not be followed.

Community Acceptance:

Community acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established soil cleanup levels and AOC requirements will not be followed.

4.2.1.2 Alternative 2 - Soil Removal by Excavation and Disposal

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

Soil excavation and disposal of those soils that exceed 5,000 μg/kg total VOCs will provide a high degree of overall protection of human health and the environment. Soil excavation and disposal would reduce the quantity of soil contaminants migrating into the Site groundwater, permanently removing soil contaminants from the Site soil. Moreover, it will comply with ARARs by satisfying the AOC requirements and be protective of the community, site workers, and the environment during implementation through effective Site control measures.

With the continued extraction and treatment of the Site groundwater at a high flow rate (about 300 gpm) for an estimated 5-year period, the groundwater plume is expected to have receded to beneath the area of the Site. Maintenance pumping at a low flow rate (about 40 gpm) would be required to continue for an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

Soil excavation and disposal is a proven technology and would remove and dispose approximately 5,100 cubic yards of soils containing contaminants at levels above established soil cleanup levels. Soil excavation and disposal combined with continued extraction and treatment of the site groundwater complies with the AOC requirements that soils be treated ... "to levels which assure, to the maximum extent practicable, that no groundwater beneath the soils becomes contaminated above groundwater no further action levels."

Long-Term Effectiveness and Permanence:

Soil excavation and disposal will be effective in reducing the migration of soil contaminants into the site groundwater. Natural leaching and degradation of contaminants in the soils outside the area impacted above 5,000 μg/kg will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

Soil excavation and disposal would remove all soils containing volatile organic contaminants at concentrations above soil cleanup levels. Soil excavation and disposal would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils (by their removal).

Soil excavation and disposal from the site represents an irreversible process for the site, but transport and disposal at a regulated, permitted hazardous waste landfill overall reduces toxicity and mobility but not volume.

Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from soil removal and disposal would be minimized by the implementation of effective Site controls. Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used.

The implementation of this alternative is not expected to impose any measurable environmental impacts. The soil excavation and disposal alternative could be effectively implemented within 6 to 9 months of on-site activity. The treatment of residual soil contaminants outside the area impacted by total VOCs in excess of 5,000 μg/kg would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.

IMPLEMENTABILITY

Technical Feasibility:

Soil excavation and removal is a technically feasible but impractical option inasmuch as nonconventional construction techniques would be required for its implementation. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible.

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. But Site controls to prevent off-site dispersion of airborne contaminants would be needed.

Availability of Services and Materials:

Conventional construction equipment and adequate disposal sites, along with the personnel required to operate it, are readily available. There are no foreseen problems associated with obtaining the services, materials, equipment, and disposal sites necessary to implement this alternative.

State Acceptance:

State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. Truck traffic to and from the Site could be a community consideration.

4.2.1.3 Alternative 3 - *In-Situ* Mixing/Hot Gas Vaporization of Soil Areas

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

The soil mixing alternative will provide a high degree of overall protection of human health and the environment. *In-situ* mixing/vaporization treatment of soils exceeding 5,000 μg/kg should effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove soil contaminants from the Site soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation through the implementation of effective Site control measures.

Continued extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

In-situ mixing/vaporization is a proven technology and is expected to reduce contaminant concentrations below established soil cleanup levels of 5,000 μg/kg. This treatment technology and the continued extraction and treatment of Site groundwater are expected to comply with the AOC requirement that soils

be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Long-Term Effectiveness and Permanence:

The *in-situ* mixing/vaporization technology is expected to be effective in eliminating the migration of soil contaminants into the Site groundwater. Natural leaching and degradation of remaining contaminants in the soils will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

The *in-situ* mixing/vaporization technology is expected remove at least 90 percent of the volatile organic contaminants in soils that are treated. *In-situ* mixing/vaporization will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils and satisfy statutory preferences for treatment. *In-situ* mixing/vaporization is an irreversible treatment process. Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from the *in-situ* treatment of the Site soils with this alternative would not be measurable. The design of the *in-situ* mixing/vaporization treatment process will incorporate collection and treatment of the off-gases to control airborne organic compounds. Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. The implementation of this alternative is not expected to impose any measurable environmental impacts.

The estimated time to implement treatment of the soils and reduce soil concentrations below the established soil cleanup levels is less than three months. The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.

IMPLEMENTABILITY

Technical Feasibility:

The *in-situ* soil mixing/hot gas vaporization technology is considered a technically feasible and reliable remedial option for the Site soil contaminants. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. The large cranes and mixing equipment required to implement this technology may have difficulty in accessing and moving around the project Site (e.g., overhead utilities, sloped topography, and the small size of the Site).

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. The off-gas treatment for the *in-situ* mixing technology may require an air permit-to-install or an exemption.

Availability of Services and Materials:

The *in-situ* mixing/vaporization technology, along with personnel required for implementation, is readily available. The services and materials necessary to implement this alternative are readily available.

State Acceptance:

State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. The large cranes and mixing equipment needed to treat the soils with the *in-situ* mixing technology could be a community consideration.

4.2.1.4 Alternative 4 - Treatment of Soils by Pneumatic Fracturing and Soil Vapor Extraction

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

Successful pneumatic fracturing and SVE treatment of impacted soils with total VOC concentrations in excess of 5,000 μg/kg would provide a high degree of overall protection of human health and the environment. Pneumatic fracturing and SVE treatment would effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove contaminants from the soil (within an estimated 5-year time period); comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation.

Continued extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

SVE treatment is a proven technology and will reduce contaminant concentrations below established cleanup levels. Successful application of pneumatic fracturing and SVE treatment and continued extraction and treatment of Site groundwater are expected to comply with AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Long-Term Effectiveness and Permanence:

Successful application of pneumatic fracturing and the SVE treatment would be effective in eliminating the migration of soil contaminants into the groundwater (within an estimated 5-year time period). Natural leaching and degradation of contaminants in the soils outside the area underlain by soils with total VOC concentrations greater that 5,000 μg/kg will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

Successful pneumatic fracturing and SVE treatment would be expected to remove 90% of the volatile organic contaminants in the soils that are treated. Successful pneumatic fracturing and SVE treatment would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment. SVE is an irreversible treatment process.

Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from the operation of the SVE treatment system would not be measurable. If necessary, controlled air emissions from the SVE treatment system could be incorporated into the system design. Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used.

The implementation of this alternative is not expected to impose any measurable environmental impacts. The estimated time to reduce soil contaminant concentrations in the area below the established cleanup levels with successful pneumatic fracturing and SVE treatment is less than 5 years. The treatment of residual soil contaminants outside the area would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 5 years.

IMPLEMENTABILITY

Technical Feasibility:

The SVE technology, with enhancements to the technology using pneumatic fracturing to improve soil permeability, should be technically feasible for the Site soil contaminants. A final judgement on technical feasibility will be made after a pilot application of the technology has been performed at the Site. All

proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible.

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. Dependent upon the concentration of volatile organic compounds in the vapor extraction system off-gas, an air permit-to-install or an exemption may be necessary for the SVE system.

Availability of Services and Materials:

The SVE and pneumatic fracturing technologies, along with the personnel required to implement them, are readily available. The services and materials necessary to implement this alternative are readily available.

State Acceptance:

State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

4.2.1.5 Alternative 5 - Treatment of Soils Via Thermally-Enhanced Soil Vapor Extraction

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

Thermally-enhanced soil vapor extraction of soils with total VOCs greater than 5,000 μg/kg would provide a high degree of overall protection of human health and the environment. Thermally-enhanced

soil vapor extraction would effectively reduce the migration of soil contaminants into the site groundwater; permanently remove contaminants from the soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation.

Enhanced extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

Thermally-enhanced soil vapor extraction is an innovative technology that has been developed for the treatment of VOCs in clay soils and is expected to reduce contaminant concentrations below established cleanup levels. Successful application of the thermally-enhanced soil vapor extraction treatment process and continued extraction and treatment of Site groundwater are expected to comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Long-Term Effectiveness and Permanence:

Successful application of the thermally-enhanced soil vapor extraction treatment process is expected to be effective in eliminating the migration of soil contaminants into the groundwater. Natural leaching and degradation of contaminants not removed will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

Successful treatment by thermally-enhanced soil vapor extraction would almost quantitatively remove the volatile organic contaminants in the soils that are treated. Successful treatment by thermally-enhanced soil vapor extraction will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment.

Thermally-enhanced soil vapor extraction is an irreversible treatment process. Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This would result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from the operation of the thermally-enhanced soil vapor extraction system would not be measurable. All emissions from the thermally-enhanced soil vapor extraction system will be collected and treated in an on-site system to destroy any residual contaminants not destroyed *in-situ*. Impacts to site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used.

The implementation of this alternative is not expected to impose any measurable environmental impacts. The estimated time to reduce soil contaminant concentrations to below the established soil cleanup levels with thermally-enhanced soil vapor extraction, including site preparation is 5 months. The treatment of residual soil contaminants would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.

IMPLEMENTABILITY

Technical Feasibility:

The thermally-enhanced soil vapor extraction process should be a technically feasible and reliable remedial option for the Site soil contaminants. The first full-scale application of this technology is currently being conducted at a project site in Indiana. Further judgement on technical feasibility will be made once the results of the first full-scale application of this technology are available. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible.

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. An air permit-to-install may be required for the discharge stack of the emissions control system of the thermally-enhanced soil vapor extraction system.

Availability of Services and Materials:

The equipment and personnel required to implement the thermally-enhanced soil vapor extraction system should be available within a reasonable time frame. If the thermally-enhanced soil vapor extraction process is demonstrated to be successful during the first full-scale application, problems associated with obtaining the services and materials necessary to implement this alternative are not anticipated.

State Acceptance:

State acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

4.2.2 Cost Analysis

Cost analysis is provided in Table 4-6. The estimated costs are separated into the direct capital costs, indirect capital costs, annual O&M costs, and a net present worth of the long-term O&M costs. For each of these, estimates are made of the costs anticipated for the soil actions and the groundwater actions.

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TABLE 4-1
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS SITE SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA: EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
1. No Action on Soils Description No-action on Soils • Existing Extraction System	*Overall Protection of Human Health and the Environment*: • No-action for removal or treatment would be taken on contaminants in the soils, but natural leaching and degradation of the contaminants would ultimately lead to their disappearance from the Site soils. • Soil contaminants would continue to migrate into the groundwater beneath the Site and be collected by the groundwater treatment system. Established cleanup levels would not be achieved, nor would there be compliance with AOC requirements. • Extraction and treatment of Site groundwater at the current rate for 3 years and at a lower rate for 17 years. *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • No treatment measures would be taken to reduce soil contaminant concentrations; natural leaching and degradation will bring contaminant levels in the soils below established cleanup levels. • Does not comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." • Does not comply with the AOC requirement for treating "...all groundwater within the contamination plume originating from the Site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARs." *Long-Term Effectiveness and Permanence*: • There would ultimately be no residual risk for the soils if the soil contaminants are left to naturally degrade and leach into the groundwater. Residual risk for the Site groundwater would continue over the long-term because the soil contaminants would continue to contribute to the Site groundwater contamination. Thus, in the long term, the no-action alternative would not be effective or permanent. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • No treatment of soil contaminants is provided under the no-action alternative, but the natural processes of leaching and degradation will, over time, transfer soil contaminants into the groundwater. • Because there would be a transfer of contaminants into another, more mobile medium, there would be increases in toxicity, mobility, and volume. *Short-Term Effectiveness*: • The absence of any remedial actions for the soil under the no-action alternative indicates that no short-term impacts to the community or the environment will occur because there is no implementation. Contaminants leaching from the soil will ultimately increase the potential impacts from the groundwater.	*Technical Feasibility*: • No technical feasibility considerations exist in the absence of any measures being taken to treat or remove the contaminants *Administrative Feasibility*: • Administrative difficulties are anticipated because no proactive measures will be taken to reduce contaminant levels below established cleanup levels, and AOC requirements to perform treatment will not be followed. *Availability of Services and Materials*: • Availability of services and materials is not an issue for the no-action alternative, based on the absence of any protective measures taken to treat or remove the contaminants. *State Acceptance*: • State acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established cleanup levels and AOC requirements will not be followed. *Community Acceptance*: • Community acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established soil cleanup levels and AOC requirements will not be followed.	Direct Capital Cost: Soil - None Groundwater - None Indirect Capital Cost: Soil - None Groundwater - None Annual O&M Cost: Soil - None Groundwater - $70,000 9 years, $31,000 11 years O&M Net Present Worth Cost: Groundwater - $638,384 Total Net Present Worth: $2,400,267

TABLE 4-2
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS SITE SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA: EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
2. **Remove Soil with Total VOCs >5,000 µg/kg by Excavation and Off-Site Disposal** Description • Remove soils with total VOCs >5,000 µg/kg • Enhanced groundwater removal with the addition of GSS-EW3[1] • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • Soil excavation and disposal of soils exceeding 5,000 µg/kg total VOCs will provide a high degree of overall protection of human health and the environment. Soil excavation and disposal would reduce the quantity of soil contaminants migrating into the Site groundwater, permanently remove soil contaminants from the Site soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation through the implementation of effective Site control measures. • Enhanced extraction and treatment of the Site groundwater at a high flow rate (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years[1]. *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • Soil excavation and disposal is a proven technology and would remove and dispose approximately 8,000 cubic yards of soils containing contaminants at levels above 5,000 µg/kg total VOCs. • Soil excavation and disposal combined with continued extraction and treatment of the Site groundwater complies with the AOC requirements that soils be treated ... "to levels which assure, to the maximum extent practicable, that no groundwater beneath the soils becomes contaminated above groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • Soil excavation and disposal of soils exceeding 5,000 µ/kg total VOCs will be effective in reducing the migration of soil contaminants into the Site groundwater. • Natural leaching and degradation of contaminants in the soils outside of this area will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • Soil excavation and disposal would remove all soils containing volatile organic contaminants at concentrations above 5,000 µg/kg. • Soil excavation and disposal would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils (by their removal). • Soil excavation and disposal from the Site represents an irreversible process for the Site, but transport and disposal at a regulated, permitted hazardous waste landfill overall reduces toxicity and mobility but not volume. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. *Short-Term Effectiveness*: • Risk to the nearby residents resulting from the soil removal and disposal would be minimized by the implementation of effective Site controls. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The soil excavation and disposal alternative could be effectively implemented within 6 to 9 months of on-Site activity. • The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • Soil excavation and removal is a technically feasible but impractical, inasmuch as nonconventional construction techniques would be utilized for its implementation. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. But Site controls to prevent off-Site dispersion of airborne contaminants would be needed. *Availability of Services and Materials*: • Conventional construction equipment and adequate disposal Sites, along with the personnel required to operate it, are readily available. • There are no foreseen problems associated with obtaining the services, materials, equipment, and disposal Sites necessary to implement this alternative. *State Acceptance*: • State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. Truck traffic to and from the Site could be a community consideration.	Direct Capital Cost: Soil - $4,529,735 Groundwater - $75,900 Indirect Capital Cost: Soil - $450,000 Groundwater - $13,543 Annual O&M Cost: Soil - None Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,487 Total Net Present Worth: $6,464,898

[1] Based on groundwater modeling results.

TABLE 4-3
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS SITE SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA: EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
3 **Treat Soils with Total VOCs >5,000 µg/kg by *In-Situ* Mixing/Hot Gas Vaporization** Description • Treat soils with total VOCs >5,000 µg/kg with *in-situ* mixing/hot gas vaporization • Enhanced groundwater removal with the addition of GSS-EW3[1] • High rate pumping of 300 gpm for 5 years • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • The soil mixing alternative will provide a high degree of overall protection of human health and the environment. *In-situ* mixing/vaporization treatment of soils exceeding 5,000 µg/kg should effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove soil contaminants from the Site soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation through the implementation of effective Site control measures. • Continued extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5 year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years. *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • *In-situ* mixing/vaporization is a proven technology and is expected to reduce contaminant concentrations below established soil cleanup levels of 5,000 µg/kg. • This treatment technology and the continued extraction and treatment of Site groundwater are expected to comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • The *in-situ* mixing/vaporization technology is expected to be effective in eliminating the migration of soil contaminants into the Site groundwater. • Natural leaching and degradation of remaining contaminants in the soils will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • The *in-situ* mixing/vaporization technology is expected to remove at least 90 percent of the volatile organic contaminants in soils that are treated. • *In-situ* mixing/vaporization will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils and satisfy statutory preferences for treatment. • *In-situ* mixing/vaporization is an irreversible treatment process. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. *Short-Term Effectiveness*: • Risk to the nearby residents resulting from the *in-situ* treatment of the Site soils with this alternative would not be measurable. The design of the *in-situ* mixing/vaporization treatment process will incorporate collection and treatment of the off-gases to control airborne organic compounds. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The estimated time to implement treatment of the soils and reduce soil concentrations below the established soil cleanup levels is less than three months. • The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • The *in-situ* soil mixing/hot gas vaporization technology is considered a technically feasible and reliable remedial option for the Site soil contaminants. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. • The large cranes and mixing equipment required to implement this technology may have difficulty in accessing and moving around the project Site (e.g., overhead utilities, sloped topography, and the small size of the Site. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. The off-gas treatment for the *in-situ* mixing technology will require an air permit-to-install or an exemption. *Availability of Services and Materials*: • The *in-situ* mixing/vaporization technology, along with personnel required for implementation, is readily available. • The services and materials necessary to implement this alternative are readily available. *State Acceptance*: • State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. • The large cranes and mixing equipment needed to treat the soils with the *in-situ* mixing technology could be a community consideration.	Direct Capital Cost: Soil - $1,454,478 Groundwater - $75,900 Indirect Capital Cost: Soil - $167,771 Groundwater - $13,543 Annual O&M Cost: Soil - None Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,497 Total Net Present Worth: $3,097,512

[1] Based on groundwater modeling results

TABLE 4-4
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS SITE SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA: EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
4 **Treat Soils with Total VOCs >5,000 µg/kg by Pneumatic Fracturing and Soil Vapor Extraction** Description • Treat soils with total VOCs >5,000 µg/kg with pneumatic fracturing and SVE • Enhanced groundwater extraction with the installation of GSS-EW3[1] • High rate pumping of 300 gpm for 5 years • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at the current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • Successful pneumatic fracturing and SVE treatment of soils with total VOCs >5,000 µg/kg would provide a high degree of overall protection of human health and the environment. Pneumatic fracturing and SVE treatment could effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove contaminants from the soil (within an estimated 5-year time period); comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation. • Enhanced extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years[1]. *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • SVE treatment is a proven technology and should reduce contaminant concentrations below established cleanup levels. • Successful application of pneumatic fracturing and SVE treatment and continued extraction and treatment of Site groundwater are expected to comply with AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • Successful application of pneumatic fracturing and the SVE treatment would be effective in eliminating the migration of soil contaminants into the groundwater (within an estimated 5-year time period). • Natural leaching and degradation of contaminants in the soils will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • Successful pneumatic fracturing and SVE treatment would be expected to remove 90% of the volatile organic contaminants in the soils that are treated. • Successful pneumatic fracturing and SVE treatment would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment. • SVE is an irreversible treatment process. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. *Short-Term Effectiveness*: • Risk to the nearby residents resulting from the operation of the SVE treatment system would not be measurable. If necessary, controlled air emissions from the SVE treatment system could be incorporated into the system design. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The estimated time to reduce soil contaminant concentrations below the established cleanup levels with successful pneumatic fracturing and SVE treatment is less than 5 years. • The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • The SVE technology, with enhancements to the technology using pneumatic fracturing to improve soil permeability, should be technically feasible for the Site soil contaminants. A final judgement on technical feasibility will be made after a pilot-application of the technology has been performed at the Site. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. Dependent upon the concentration of volatile organic compounds in the vapor extraction system off-gas, an air permit-to-install or an exemption may be necessary for the SVE system. *Availability of Services and Materials*: • The SVE and pneumatic fracturing technologies, along with the personnel required to implement them, are readily available. • The services and materials necessary to implement this alternative are readily available. *State Acceptance*: • State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.	Direct Capital Cost: Soil - $306,728 Groundwater - $75,900 Indirect Capital Cost: Soil - $119,062 Groundwater - $13,543 Annual O&M Cost: Soil - $128,340 Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,487 Total Net Present Worth:[1] $2,456,598

[1] Based on groundwater modeling results

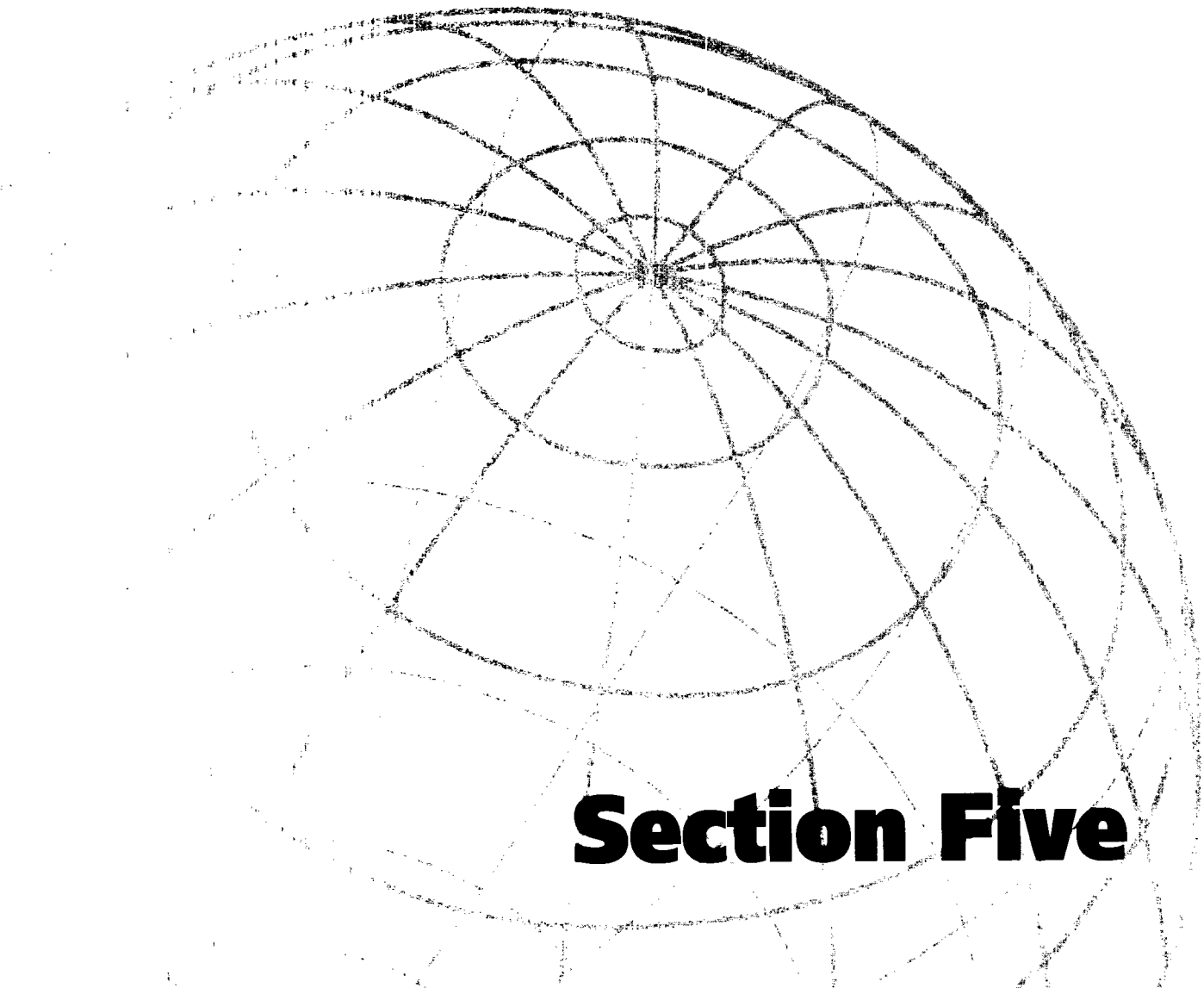
TABLE 4-5
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS SITE SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA: EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
5. **Treat Soils with Total VOCs >5,000 µg/kg by *In-Situ* Thermal Treatment (Shell Process)** Description • Treat soils with total VOCs >5,000 µg/kg by *in-situ* thermal treatment • Enhanced groundwater extraction with the installation of GSS-EW3[1] • High rate pumping of 300 gpm for 5 years • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at the current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment:* • Thermally-enhanced soil vapor extraction of soils with total VOCs >5,000 µg/kg would provide a high degree of overall protection of human health and the environment. Thermally-enhanced soil vapor extraction would effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove contaminants from the soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation. • Enhanced extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.[1] *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • Thermally-enhanced soil vapor extraction is an innovative technology that has been developed for the treatment of VOCs in clay soils and is expected to reduce contaminant concentrations below established cleanup levels. • Successful application of the thermally-enhanced soil vapor extraction treatment process and continued extraction and treatment of Site groundwater are expected to comply with AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • Successful application of the thermally-enhanced soil vapor extraction treatment process is expected to be effective in eliminating the migration of soil contaminants into the groundwater. • Natural leaching and degradation of contaminants not removed will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • Successful treatment by thermally-enhanced soil vapor extraction would almost quantitatively remove the volatile organic contaminants in the soils that are treated. • Successful treatment by thermally-enhanced soil vapor extraction will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment. • Thermally-enhanced soil vapor extraction is an irreversible treatment process. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. ***Short-Term Effectiveness***: • Risk to the nearby residents resulting from the operation of the thermally-enhanced soil vapor extraction system would not be measurable. All emissions from the thermally-enhanced soil vapor extraction system will be collected and treated in an on-Site system to destroy any residual contaminants not destroyed *in-situ*. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The estimated time to reduce soil contaminant concentrations to below the established soil cleanup levels with thermally-enhanced soil vapor extraction, including Site preparation is 5 months. • The treatment of residual soil contaminants would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • The thermally enhanced soil vapor extraction process should be a technically feasible and reliable remedial option for the Site soil contaminants. The first full-scale application of this technology is currently being conducted at a project Site in Indiana. Further judgement on technical feasibility will be made once the results of the first full-scale application of this technology are available. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. An air permit-to-install may be required for the discharge stack of the emissions control system of the thermally-enhanced soil vapor extraction system. *Availability of Services and Materials*: • The equipment and personnel required to implement the thermally-enhanced soil vapor extraction system should be available within a reasonable time frame. • If the thermally-enhanced soil vapor extraction process is demonstrated to be successful during the first full-scale application, problems associated with obtaining the services and materials necessary to implement this alternative are not anticipated. *State Acceptance*: • State acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.	Direct Capital Cost: Soil - $1,500,000 to $2,000,000 Groundwater - $75,900 Indirect Capital Cost: Soil - $140,000 to $180,000 Groundwater - $13,543 Annual O&M Cost: Soil - None Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,497 Total Net Present Worth: $3,115,1634 to $3,655,163

[1] Based on groundwater modeling results

TABLE 4-6
COMPARISON OF COSTS FOR ALTERNATIVES 1 THROUGH 5

Alternative Number	Soil Remedy	Soil Remedy Estimated Direct Capital Cost	Soil Remedy Estimated Indirect Capital Cost	Soil Remedy Estimated Annual O&M Cost	Soil Remedy Estimated Net Present Worth Cost	Groundwater Remedy	Groundwater Remedy Estimated Direct Capital Cost	Groundwater Remedy Estimated Indirect Capital Cost	Groundwater Remedy Estimated Annual O&M Cost	Groundwater Remedy Estimated Net Present Worth Cost	Groundwater Monitoring Scenario	Estimated Net Present Worth Cost of Groundwater Monitoring	TOTAL NET PRESENT WORTH COST
1	No Action	None	None	None	None	Existing system	None	None	$70,000 (years 0-3); $31,000 (years 4-20)	$638,394	Monitor for 16 years at current level and 15 years at reduced level	$1,761,833	$2,400,267
2	Soil Removal by Excavation and Disposal	$4,529,735	$460,000	None	$4,989,735	Install EW-3 as new extraction well and operate EW-3 for 5 years at 300 ppm then maintenance pump from EW-3 for 5 more years at 40 gpm.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$6,464,898
3	*In-Situ* Mixing/Hot Gas Vaporization of Soil Areas	$1,454,578	$167,771	None	$1,622,349	Install EW-3 as new extraction well and operate EW-3 for 5 years at 300 ppm then maintenance pump from EW-3 for 5 more years at 40 gpm.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$3,097,512
4	Treatment of Soils Via Pneumatic Fracturing and Soil Vapor Extraction	$306,728	$118,062	$128,340	$981,435 (based on 5 years of O&M costs)	Install EW-3 as new extraction well and operate EW-3 for 5 years at 300 ppm then maintenance pump from EW-3 for 5 more years at 40 gpm.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$2,456,598
5	Treatment of Soils Via Thermally-Enhanced Soil Vapor Extraction (Shell Process)	$1,500,000 to $2,000,000	$140,000 to $180,000	None	$1,640,000 to $2,180,000	Install EW-3 as new extraction well and operate EW-3 for 5 years at 300 ppm then maintenance pump from EW-3 for 5 more years at 40 gpm.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$3,115,163 to $3,655,163



Section Five

5.0 RECOMMENDED REMOVAL ACTION ALTERNATIVE

Based on the comparative analyses and cost analyses provided above, the recommended Removal Action for the Site soils is Alternative 4, Table 5-1. This alternative consists of two parts. Part 1 includes the installation of an additional groundwater extraction well that will more efficiently remove contaminant mass from the water table and as it leaches from the impacted site soils.

Part 2 of this action is to implement a soil vapor extraction system enhanced by pneumatically fracturing the soil (Figure 18). This system will consist of soil vapor extraction wells placed in the areas and depths at which the soil contains VOCs above 5,000 μg/kg.

TABLE 5-1
RECOMMENDED ALTERNATIVE

Pneumatic Fracturing and Soil Vapor Extraction
• Enhance groundwater extraction system.
• Pneumatically fracture soil and use soil vapor extraction over area with total VOCs concentrations that exceed 5,000 μg/kg.

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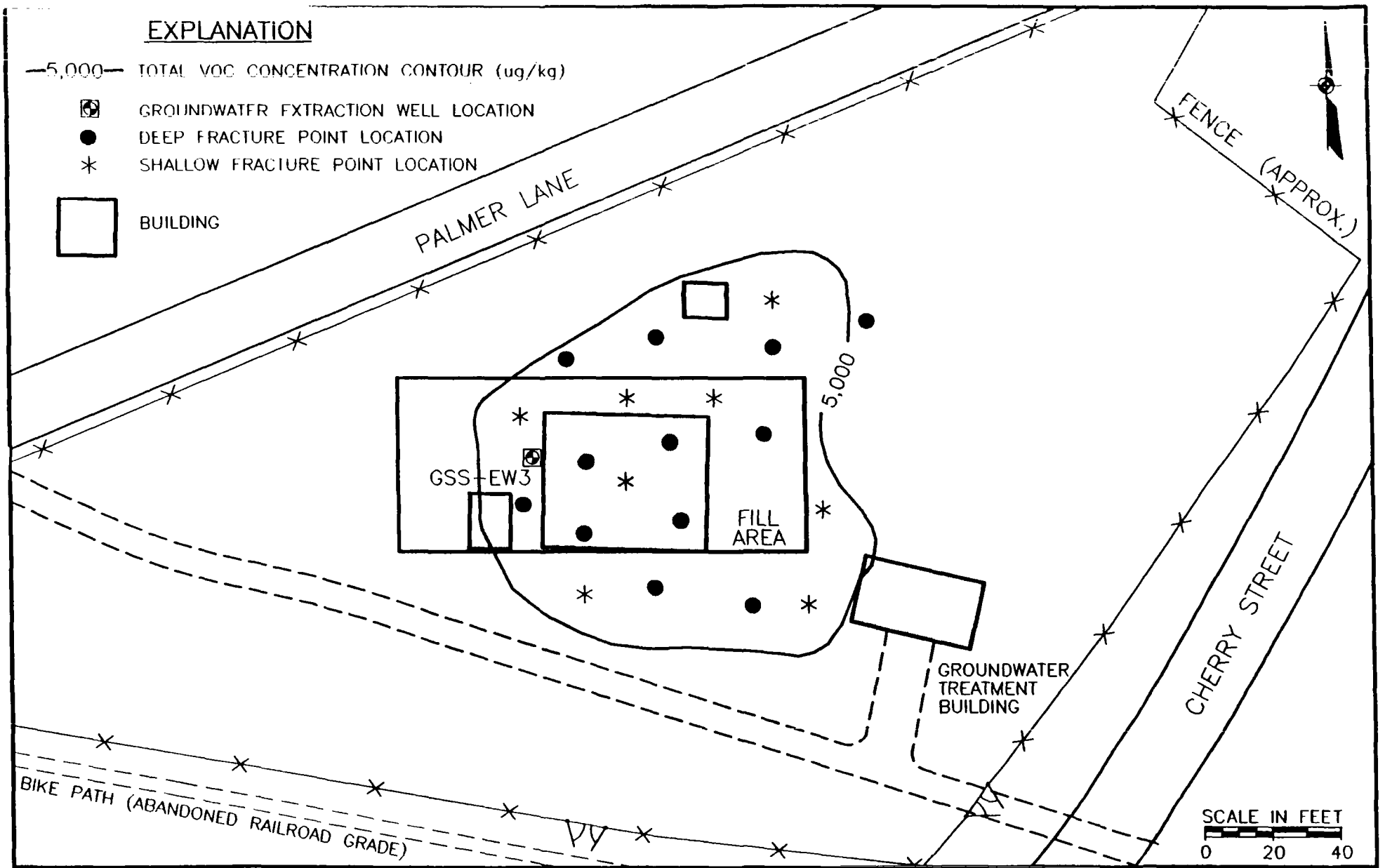

Metcalf & Eddy

GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS PRELIMINARY SVE WELL AND GROUNDWATER EXTRACTION WELL LOCATIONS 1996

GRANVILLE, OHIO

Project Number	
016688	
File Name	Figure
EECA-10	18

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Section Six

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APPENDIX A
SOIL AND GROUNDWATER DATA

A-1 GROUNDWATER DATA

A.1.1 April-May 1994 Data

A.1.2 1996 Data

A-2 SOIL DATA

A.2.1 April-May 1994 Data

A.2.2 1996 Data

APPENDIX A-1
GROUNDWATER DATA

APPENDIX A.1.1
GROUNDWATER DATA
April-May 1994 Data

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220022
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 13 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP1-1, 04/29/94 at 1835 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	5.0 U
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	104

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220023
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 13, 15 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP1-2, 04/29/94 at 1945 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.3J	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	12
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.9
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	99

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220024
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 & 15 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP1-3, 04/30/94 at 0830 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	2
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.6
chloroform	0.5 U	acetone	2200
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5
trans-1,3-dichloropropene	0.5 U	2-hexanone	2J
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

The sample was diluted 100 fold to quantify acetone.

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	89

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220025
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP1-4, 04/30/94 at 0955 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	2
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.6
chloroform	0.5 U	acetone	1000
1,1-dichloroethene	0.5 U	2-butanone	2J
1,2-dichloropropane	0.5 U	carbon disulfide	0.3J
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	105

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220026
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP2-1, 05/01/94 at 0910 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	860
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	94

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220027
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP2-2, 05/01/94 at 1030 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	620
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	86

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220028
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP2-3, 05/01/94 at 1215 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	320
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	85

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220029
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 13 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP3-1, 05/02/94 at 1125 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.7	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	8	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	1
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	33
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	92

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220030
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 13 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP3-2, 05/02/94 at 1245 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	1	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	8	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	1
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	110
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	98

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220031
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP3-3, 05/02/94 at 1345 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.9	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	13	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	2
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	89
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.3J
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 02 June 1994
Aquatec Lab No.: 220032
ETR No.: 43909; Project No.: 94000
Sample Received On: 04 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP4-1, 05/03/94 at 1555 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	5 U	chloromethane	5 U
carbon tetrachloride	5 U	bromomethane	5 U
chlorobenzene	5 U	bromoform	5 U
1,2-dichloroethane	5 U	bromodichloromethane	5 U
1,1,1-trichloroethane	80	dibromochloromethane	5 U
1,1-dichloroethane	5 U	tetrachloroethene	5 U
1,1,2-trichloroethane	5 U	toluene	5 U
1,1,2,2-tetrachloroethane	5 U	trichloroethene	140
chloroethane	5 U	vinyl chloride	5 U
chloroform	5 U	acetone	120
1,1-dichloroethene	5 U	2-butanone	50 U
1,2-dichloropropane	5 U	carbon disulfide	5 U
trans-1,3-dichloropropene	5 U	2-hexanone	50 U
cis-1,3-dichloropropene	5 U	4-methyl-2-pentanone	50 U
ethylbenzene	5 U	styrene	5 U
methylene chloride	5 U	m & p-xylenes	10 U
cis-1,2-dichloroethene	5 U	o-xylene	5 U
trans-1,2-dichloroethene	5 U		

The sample was diluted 10 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	88

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 03 June 1994
Aquatec Lab No.: 220179
ETR No.: 43964; Project No.: 94000
Sample Received On: 05 May 1994; Analyzed On: 10 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-4-2, 05/03/94 at 1800 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	2.0 U	chloromethane	2.0 U
carbon tetrachloride	2.0 U	bromomethane	2.0 U
chlorobenzene	2.0 U	bromoform	2.0 U
1,2-dichloroethane	2.0 U	bromodichloromethane	2.0 U
1,1,1-trichloroethane	33	dibromochloromethane	2.0 U
1,1-dichloroethane	2.0 U	tetrachloroethene	2.0 U
1,1,2-trichloroethane	2.0 U	toluene	2.0 U
1,1,2,2-tetrachloroethane	2.0 U	trichloroethene	44
chloroethane	2.0 U	vinyl chloride	2.0 U
chloroform	2.0 U	acetone	990
1,1-dichloroethene	2.0 U	2-butanone	20 U
1,2-dichloropropane	2.0 U	carbon disulfide	2.0 U
trans-1,3-dichloropropene	2.0 U	2-hexanone	20 U
cis-1,3-dichloropropene	2.0 U	4-methyl-2-pentanone	20 U
ethylbenzene	2.0 U	styrene	2.0 U
methylene chloride	2.0 U	m & p-xylenes	4.0 U
cis-1,2-dichloroethene	2.0 U	o-xylene	2.0 U
trans-1,2-dichloroethene	2.0 U		

The sample was diluted 4.0 fold for analysis.

Summary of Surrogate Recoveries	% Rec
toluene-d_8	110
p-bromofluorobenzene	107
1,2-dichlorobenzene-d_4	105

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 03 June 1994
Aquatec Lab No.: 220180
ETR No.: 43964; Project No.: 94000
Sample Received On: 05 May 1994; Analyzed On: 10, 11 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-4-3, 05/04/94 at 0930 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	15	dibromochloromethane	0.5 U
1,1-dichloroethane	1.7	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	23
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	300
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	100
p-bromofluorobenzene	96
1,2-dichlorobenzene-d_4	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 03 June 1994
Aquatec Lab No.: 220181
ETR No.: 43964; Project No.: 94000
Sample Received On: 05 May 1994; Analyzed On: 10 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-4-4, 05/04/94 at 1030 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.2J	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	9.5	dibromochloromethane	0.5 U
1,1-dichloroethane	0.9	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.2J
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	13
chloroethane	0.5 U	vinyl chloride	0.7
chloroform	0.5 U	acetone	50
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.3J	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	106
p-bromofluorobenzene	90
1,2-dichlorobenzene-d_4	97

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220447
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 12, 16 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., liquid sample labeled HP5-2, 05/05/94 at 1030 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	34	dibromochloromethane	0.5 U
1,1-dichloroethane	19	tetrachloroethene	26
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	31
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	360E
1,1-dichloroethene	0.4J	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.7
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	56	o-xylene	0.5 U
trans-1,2-dichloroethene	1.8		

The sample was diluted 8.3 fold to quantify cis-1,2-dichloroethene and acetone.

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	96
p-bromofluorobenzene	97
1,2-dichlorobenzene-d_4	101

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220448
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 12, 16 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., liquid sample labeled HP5-3, 05/05/94 at 1200 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	14	dibromochloromethane	0.5 U
1,1-dichloroethane	8.2	tetrachloroethene	8.1
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	10
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	480E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.6
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	27	o-xylene	0.5 U
trans-1,2-dichloroethene	0.8		

The sample was diluted 5.6 fold to quantify acetone.

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	100
p-bromofluorobenzene	96
1,2-dichlorobenzene-d_4	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220449
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 12 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., liquid sample labeled HP5-4, 05/05/94 at 1500 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	8.8	dibromochloromethane	0.5 U
1,1-dichloroethane	5.6	tetrachloroethene	3.9
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	5.0
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	240E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	18	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	103
p-bromofluorobenzene	96
1,2-dichlorobenzene-d_4	101

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220452
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 12 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., liquid sample labeled HP6-1, 05/05/94 at 1035 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	50 U	chloromethane	50 U
carbon tetrachloride	50 U	bromomethane	50 U
chlorobenzene	50 U	bromoform	50 U
1,2-dichloroethane	50 U	bromodichloromethane	50 U
1,1,1-trichloroethane	50 U	dibromochloromethane	50 U
1,1-dichloroethane	50 U	tetrachloroethene	50 U
1,1,2-trichloroethane	50 U	toluene	50 U
1,1,2,2-tetrachloroethane	50 U	trichloroethene	50 U
chloroethane	50 U	vinyl chloride	50 U
chloroform	50 U	acetone	5100E
1,1-dichloroethene	50 U	2-butanone	500 U
1,2-dichloropropane	50 U	carbon disulfide	50 U
trans-1,3-dichloropropene	50 U	2-hexanone	500 U
cis-1,3-dichloropropene	50 U	4-methyl-2-pentanone	500 U
ethylbenzene	50 U	styrene	50 U
methylene chloride	50 U	m & p-xylenes	100 U
cis-1,2-dichloroethene	50 U	o-xylene	50 U
trans-1,2-dichloroethene	50 U		

The sample was diluted 100 fold for analysis.

Summary of Surrogate Recoveries	% Rec
toluene-d_8	103
p-bromofluorobenzene	100
1,2-dichlorobenzene-d_4	96

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220453
EIR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 12, 17 & 23 May 1994
Sample Identification: Metcalf & Eddy, Inc., liquid sample labeled HP6-2, 05/05/94 at 1425 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.7	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	28
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.3J
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	90
p-bromofluorobenzene	92
1,2-dichlorobenzene-d_4	90

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220454
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 12 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., liquid sample labeled HP6-3, 05/05/94 at 1655 hours.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.6	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.8	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	170E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	98
p-bromofluorobenzene	96
1,2-dichlorobenzene-d_4	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 03 June 1994
Aquatec Lab No.: 220608
ETR No.: 44012; Project No.: 94000
Sample Received On: 07 May 1994; Analyzed On: 12 & 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP6-4, 05/06/94.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	160E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	96
p-bromofluorobenzene	89
1,2-dichlorobenzene-d_4	116

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 03 June 1994
Aquatec Lab No.: 220609
ETR No.: 44012; Project No.: 94000
Sample Received On: 07 May 1994; Analyzed On: 12, 16 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP7-1, 05/06/94.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	5.0 U	chloromethane	5.0 U
carbon tetrachloride	5.0 U	bromomethane	5.0 U
chlorobenzene	5.0 U	bromoform	5.0 U
1,2-dichloroethane	5.0 U	bromodichloromethane	5.0 U
1,1,1-trichloroethane	5.0 U	dibromochloromethane	5.0 U
1,1-dichloroethane	5.0 U	tetrachloroethene	5.0 U
1,1,2-trichloroethane	5.0 U	toluene	5.0 U
1,1,2,2-tetrachloroethane	5.0 U	trichloroethene	5.0 U
chloroethane	5.0 U	vinyl chloride	5.0 U
chloroform	5.0 U	acetone	860E
1,1-dichloroethene	5.0 U	2-butanone	50 U
1,2-dichloropropane	5.0 U	carbon disulfide	5.0 U
trans-1,3-dichloropropene	5.0 U	2-hexanone	50 U
cis-1,3-dichloropropene	5.0 U	4-methyl-2-pentanone	50 U
ethylbenzene	5.0 U	styrene	5.0 U
methylene chloride	5.0 U	m & p-xylenes	10 U
cis-1,2-dichloroethene	5.0 U	o-xylene	5.0 U
trans-1,2-dichloroethene	5.0 U		

The sample was diluted 10 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	102
p-bromofluorobenzene	101
1,2-dichlorobenzene-d_4	104

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

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B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 03 June 1994
Aquatec Lab No.: 220610
ETR No.: 44012; Project No.: 94000
Sample Received On: 07 May 1994; Analyzed On: 12, 16 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-7-2, 05/06/94.

Volatile Organic Compounds in ug/l
EPA Method 524.2

benzene	5.0 U	chloromethane	5.0 U
carbon tetrachloride	5.0 U	bromomethane	5.0 U
chlorobenzene	5.0 U	bromoform	5.0 U
1,2-dichloroethane	5.0 U	bromodichloromethane	5.0 U
1,1,1-trichloroethane	5.0 U	dibromochloromethane	5.0 U
1,1-dichloroethane	5.0 U	tetrachloroethene	5.0 U
1,1,2-trichloroethane	5.0 U	toluene	5.0 U
1,1,2,2-tetrachloroethane	5.0 U	trichloroethene	5.0 U
chloroethane	5.0 U	vinyl chloride	5.0 U
chloroform	5.0 U	acetone	1300E
1,1-dichloroethene	5.0 U	2-butanone	50 U
1,2-dichloropropane	5.0 U	carbon disulfide	5.0 U
trans-1,3-dichloropropene	5.0 U	2-hexanone	50 U
cis-1,3-dichloropropene	5.0 U	4-methyl-2-pentanone	50 U
ethylbenzene	5.0 U	styrene	5.0 U
methylene chloride	5.0 U	m & p-xylenes	10 U
cis-1,2-dichloroethene	5.0 U	o-xylene	5.0 U
trans-1,2-dichloroethene	5.0 U		

The sample was diluted 10 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
toluene-d_8	93
p-bromofluorobenzene	90
1,2-dichlorobenzene-d_4	108

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220752
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 15 & 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP8-1, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	5	chloromethane	1.2 U
carbon tetrachloride	1.2 U	bromomethane	1.2 U
chlorobenzene	1.2 U	bromoform	1.2 U
1,2-dichloroethane	1.2 U	bromodichloromethane	1.2 U
1,1,1-trichloroethane	50	dibromochloromethane	1.2 U
1,1-dichloroethane	1.2 U	tetrachloroethene	21
1,1,2-trichloroethane	1.2 U	toluene	1.2 U
1,1,2,2-tetrachloroethane	1.2 U	trichloroethene	27
chloroethane	1.2 U	vinyl chloride	1.2 U
chloroform	1.2 U	acetone	3600E
1,1-dichloroethene	1.2 U	2-butanone	12 U
1,2-dichloropropane	1.2 U	carbon disulfide	1.2 U
trans-1,3-dichloropropene	1.2 U	2-hexanone	12 U
cis-1,3-dichloropropene	1.2 U	4-methyl-2-pentanone	12 U
ethylbenzene	1.2 U	styrene	1.2 U
methylene chloride	1.2 U	m & p-xylenes	2.5 U
cis-1,2-dichloroethene	1.2 U	o-xylene	1.2 U
trans-1,2-dichloroethene	1.2 U		

The sample was diluted 2.5 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220753
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP8-2, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.6	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	53E	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	9
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	18
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	1500E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	99

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

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B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220754
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP8-3, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	1	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	34	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	5
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	11
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	900E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

The sample was diluted 1.7 fold to quantify 1,1,1-trichloroethane.

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	98

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220756
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP9-2, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	5.0 U
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	99

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220757
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP9-3, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	600E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	2	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	93

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220758
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 15 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP9-4, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	150E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.3J
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	94

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220759
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 & 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP10-1, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	45	dibromochloromethane	0.5 U
1,1-dichloroethane	3	tetrachloroethene	13
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	41
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	43
1,1-dichloroethene	0.5	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	73	o-xylene	0.5 U
trans-1,2-dichloroethene	2		

The sample was diluted 5 fold to quantify cis-1,2-dichloroethene, trichloroethene and 1,1,1-trichloroethene.

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	99

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220762
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-10-2, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	17	dibromochloromethane	0.5 U
1,1-dichloroethane	1	tetrachloroethene	5
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	12
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	48E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	24	o-xylene	0.5 U
trans-1,2-dichloroethene	1		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

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Aquatec Lab No.: 220763
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-10-3, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	12	dibromochloromethane	0.5 U
1,1-dichloroethane	2	tetrachloroethene	3
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	9
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	8
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	19	o-xylene	0.5 U
trans-1,2-dichloroethene	0.8		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	101

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220764
ETR No.: 44033; Project No.: 94000
Sample Received On: 10 May 1994; Analyzed On: 16 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP-10-4, 05/09/94.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.3J	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	7	dibromochloromethane	0.5 U
1,1-dichloroethane	1	tetrachloroethene	2
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	6
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	160
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	12	o-xylene	0.5 U
trans-1,2-dichloroethene	0.4J		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220916
ETR No.: 44063; Project No.: 94000
Sample Received On: 12 May 1994; Analyzed On: 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP11-1, 05/10/94 at 1100 hours.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	0.5 U	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	0.5 U
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	0.5 U
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	5.0 U
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	0.5 U	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	91

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220917
ETR No.: 44063; Project No.: 94000
Sample Received On: 12 May 1994; Analyzed On: 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP11-2, 05/10/94 at 1225 hours.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	1 U	chloromethane	1 U
carbon tetrachloride	1 U	bromomethane	1 U
chlorobenzene	1 U	bromoform	1 U
1,2-dichloroethane	1 U	bromodichloromethane	1 U
1,1,1-trichloroethane	40	dibromochloromethane	1 U
1,1-dichloroethane	2	tetrachloroethene	17
1,1,2-trichloroethane	1 U	toluene	1 U
1,1,2,2-tetrachloroethane	1 U	trichloroethene	47
chloroethane	1 U	vinyl chloride	1 U
chloroform	1 U	acetone	140E
1,1-dichloroethene	1 U	2-butanone	10 U
1,2-dichloropropane	1 U	carbon disulfide	1 U
trans-1,3-dichloropropene	1 U	2-hexanone	10 U
cis-1,3-dichloropropene	1 U	4-methyl-2-pentanone	10 U
ethylbenzene	1 U	styrene	1 U
methylene chloride	1 U	m & p-xylenes	2 U
cis-1,2-dichloroethene	9	o-xylene	1 U
trans-1,2-dichloroethene	1 U		

The sample was diluted 2.0 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220918
ETR No.: 44063; Project No.: 94000
Sample Received On: 12 May 1994; Analyzed On: 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., water sample labeled HP11-3, 05/10/94 at 1410 hours.

Volatile Organic Compounds in ug/l
EPA Method OLC

benzene	0.5 U	chloromethane	0.5 U
carbon tetrachloride	0.5 U	bromomethane	0.5 U
chlorobenzene	0.5 U	bromoform	0.5 U
1,2-dichloroethane	0.5 U	bromodichloromethane	0.5 U
1,1,1-trichloroethane	21	dibromochloromethane	0.5 U
1,1-dichloroethane	0.5 U	tetrachloroethene	9
1,1,2-trichloroethane	0.5 U	toluene	0.5 U
1,1,2,2-tetrachloroethane	0.5 U	trichloroethene	24
chloroethane	0.5 U	vinyl chloride	0.5 U
chloroform	0.5 U	acetone	73E
1,1-dichloroethene	0.5 U	2-butanone	5.0 U
1,2-dichloropropane	0.5 U	carbon disulfide	0.5 U
trans-1,3-dichloropropene	0.5 U	2-hexanone	5.0 U
cis-1,3-dichloropropene	0.5 U	4-methyl-2-pentanone	5.0 U
ethylbenzene	0.5 U	styrene	0.5 U
methylene chloride	0.5 U	m & p-xylenes	1.0 U
cis-1,2-dichloroethene	5	o-xylene	0.5 U
trans-1,2-dichloroethene	0.5 U		

Summary of Surrogate Recoveries

	% Rec
p-bromofluorobenzene	93

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

E - Estimated compound concentration reported from response exceeding standard calibration range.

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY
DESCRIPTION HP 12-1 GROUNDWATER
PROJECT NUMBER L11859
SAMPLE NO. 4165-94
GC/MS FILE >V9096::QC

DATE COLLECTED 05/14/94
DATE RECEIVED 05/16/94
DATE ANALYZED 05/17/94 2:15
OPERATOR DS/JN
CERTIFICATION NO. 4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION HP 12-1 GROUNDWATER		DATE RECEIVED	05/16/94
PROJECT NUMBER L11859		DATE ANALYZED	05/17/94 2:15
SAMPLE NO. 4165-94		OPERATOR	DS/JN
GC/MS FILE >V9096::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION HP 12-2 GROUNDWATER		DATE RECEIVED	05/16/94
PROJECT NUMBER L11859		DATE ANALYZED	05/17/94 1:28
SAMPLE NO. 4164-94		OPERATOR	DS/JN
GC/MS FILE >V9095::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION HP 12-2 GROUNDWATER		DATE RECEIVED	05/16/94
PROJECT NUMBER L11859		DATE ANALYZED	05/17/94 1:28
SAMPLE NO. 4164-94		OPERATOR	DS/JN
GC/MS FILE >V9095::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY
DESCRIPTION HP12-3 GROUNDWATER
PROJECT NUMBER L11859
SAMPLE NO. 4160-94
GC/MS FILE >V9091::QC

DATE COLLECTED 05/14/94
DATE RECEIVED 05/16/94
DATE ANALYZED 05/16/94 22:17
OPERATOR JN
CERTIFICATION NO. 4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION	HP12-3 GROUNDWATER	DATE RECEIVED	05/16/94
PROJECT NUMBER	L11859	DATE ANALYZED	05/16/94 22:17
SAMPLE NO.	4160-94	OPERATOR	JN
GC/MS FILE	>V9091::QC	CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION	HP 12-4 GROUNDWATER	DATE RECEIVED	05/16/94
PROJECT NUMBER	L11859	DATE ANALYZED	05/16/94 23:52
SAMPLE NO.	4162-94	OPERATOR	JN
GC/MS FILE	>V9093::QC	CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION	HP 12-4 GROUNDWATER	DATE RECEIVED	05/16/94
PROJECT NUMBER	L11859	DATE ANALYZED	05/16/94 23:52
SAMPLE NO.	4162-94	OPERATOR	JN
GC/MS FILE	>V9093::QC	CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION HP 13-1 GROUNDWATER		DATE RECEIVED	05/16/94
PROJECT NUMBER L11859		DATE ANALYZED	05/16/94 21:30
SAMPLE NO. 4166-94		OPERATOR	JN
GC/MS FILE >V9090::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION	HP 13-1 GROUNDWATER	DATE RECEIVED	05/16/94
PROJECT NUMBER	L11859	DATE ANALYZED	05/16/94 21:30
SAMPLE NO.	4166-94	OPERATOR	JN
GC/MS FILE	>V9090::QC	CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY
DESCRIPTION HP 13-2 GROUNDWATER
PROJECT NUMBER L11859
SAMPLE NO. 4163-94
GC/MS FILE >V9094::QC

DATE COLLECTED 05/14/94
DATE RECEIVED 05/16/94
DATE ANALYZED 05/17/94 0:41
OPERATOR DS/JN
CERTIFICATION NO. 4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION	HP 13-2 GROUNDWATER	DATE RECEIVED	05/16/94
PROJECT NUMBER	L11859	DATE ANALYZED	05/17/94 0:41
SAMPLE NO.	4163-94	OPERATOR	DS/JN
GC/MS FILE	>V9094::QC	CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION HP 13-3 GROUNDWATER		DATE RECEIVED	05/16/94
PROJECT NUMBER L11859		DATE ANALYZED	05/16/94 23:03
SAMPLE NO. 4161-94		OPERATOR	JN
GC/MS FILE >V9092::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/14/94
DESCRIPTION HP 13-3 GROUNDWATER		DATE RECEIVED	05/16/94
PROJECT NUMBER L11859		DATE ANALYZED	05/16/94 23:03
SAMPLE NO. 4161-94		OPERATOR	JN
GC/MS FILE >V9092::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/19/94
DESCRIPTION HP-14-60 14:15		DATE RECEIVED	05/19/94
PROJECT NUMBER L11859		DATE ANALYZED	05/20/94 0:29
SAMPLE NO. 4300-94		OPERATOR	DS/JN
GC/MS FILE >V9163::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
Acetone	67-64-1	9.0 *
Benzene	71-43-2	< 0.50
Bromobenzene	108-86-1	< 0.50
Bromochloromethane	74-97-5	< 0.50
Bromodichloromethane	75-27-4	< 0.50
Bromoform	75-25-2	< 0.50
Bromomethane	74-83-9	< 0.50
n-Butylbenzene	104-51-8	< 0.50
sec-Butylbenzene	135-98-8	< 0.50
t-Butylbenzene	98-06-6	< 0.50
Carbon Tetrachloride	56-23-5	< 0.50
Chlorobenzene	108-90-7	< 0.50
Chloroethane	75-00-3	< 0.50
Chloroform	67-66-3	< 0.50
Chloromethane	74-87-3	< 0.50
2-Chlorotoluene	95-49-8	< 0.50
4-Chlorotoluene	106-43-4	< 0.50
Dibromochloromethane	124-48-1	< 0.50
1,2-Dibromo-3-Chloropropane	96-12-8	< 0.50
1,2-Dibromoethane	106-93-4	< 0.50
Dibromomethane	74-95-3	< 0.50
1,2-Dichlorobenzene	95-50-1	< 0.50
1,3-Dichlorobenzene	541-73-1	< 0.50
1,4-Dichlorobenzene	106-46-7	< 0.50
Dichlorodifluoromethane	75-71-8	< 0.50
1,1-Dichloroethane	75-35-3	< 0.50
1,2-Dichloroethane	107-06-2	< 0.50
1,1-Dichloroethene	75-35-4	< 0.50
cis-1,2-Dichloroethene	156-59-4	< 0.50
trans-1,2-Dichloroethene	156-60-5	< 0.50
1,2-Dichloropropane	78-87-5	< 0.50
cis-1,3-Dichloropropene	10061-01-5	< 0.50
trans-1,3-Dichloropropene	10061-02-6	< 0.50
1,3-Dichloropropane	142-28-9	< 0.50

CONTINUED

ATTACHMENT
BURGESS & NIPLE, LIMITED
ANALYSIS REPORT

METCALF & EDDY		DATE COLLECTED	05/19/94
DESCRIPTION HP-14-60 14:15		DATE RECEIVED	05/19/94
PROJECT NUMBER L11859		DATE ANALYZED	05/20/94 0:29
SAMPLE NO. 4300-94		OPERATOR	DS/JN
GC/MS FILE >V9163::QC		CERTIFICATION NO.	4032

EPA METHOD 524.2: VOLATILE ORGANIC COMPOUNDS

COMPOUND NAME	CAS NUMBER	UG/L
2,2-Dichloropropane	590-20-7	< 0.50
1,1-Dichloropropene	563-58-6	< 0.50
Ethyl benzene	100-41-4	< 0.50
Hexachlorobutadiene	87-68-3	< 0.50
Isopropyl Benzene	98-82-8	< 0.50
p-Isopropyltoluene	99-87-6	< 0.50
Methylene Chloride	75-09-2	< 0.50
Naphthalene	91-20-3	< 0.50
n-Propylbenzene	103-65-1	< 0.50
Styrene	100-42-5	< 0.50
1,1,1,2-Tetrachloroethane	630-20-6	< 0.50
1,1,2,2-Tetrachloroethane	79-34-5	< 0.50
Tetrachloroethene	127-18-4	< 0.50
Toluene	108-88-3	< 0.50
1,2,3-Trichlorobenzene	87-61-6	< 0.50
1,2,4-Trichlorobenzene	120-82-1	< 0.50
1,1,1-Trichloroethane	71-55-6	< 0.50
1,1,2-Trichloroethane	79-00-5	< 0.50
Trichloroethene	79-01-6	< 0.50
Trichlorofluoromethane	75-69-4	< 0.50
1,2,3-Trichloropropane	96-18-4	< 0.50
1,2,4-Trimethylbenzene	95-63-6	< 0.50
1,3,5-Trimethylbenzene	108-67-8	< 0.50
Vinyl Chloride	75-01-4	< 0.50
Xylenes, total	1330-20-7	< 0.50

* CLIENT HAS REQUESTED THAT ACETONE BE CALIBRATED FOR AND ADDED TO THE LIST OF ANALYTES.

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HP13

Lab Name: AQUATEC, INC. Contract: 94000

Lab Code: AQUAI Case No.: 44396 SAS No.: SDG No.: 44396

Lab Sample ID: 222400 Date Received: 05/27/94

Lab File ID: L222400I2V.D Date Analyzed: 06/01/94

Purge Volume: 5.0 (mL) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HP14

Lab Name: AQUATEC, INC. Contract: 94000

Lab Code: AQUAI Case No.: 44396 SAS No.: SDG No.: 44396

Lab Sample ID: 222402 Date Received: 05/27/94

Lab File ID: L222402V.D Date Analyzed: 05/31/94

Purge Volume: 5.0 (mL) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	0.5	J
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U

1LCA

LOW CONC. WATER VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

HP15

Lab Name: AQUATEC, INC. Contract: 94000

Lab Code: AQUAI Case No.: 44396 SAS No.: SDG No.: 44396

Lab Sample ID: 222404 Date Received: 05/27/94

Lab File ID: L222404V.D Date Analyzed: 05/31/94

Purge Volume: 5.0 (mL) Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION (ug/L)	Q
74-87-3	Chloromethane	1	U
74-83-9	Bromomethane	1	U
75-01-4	Vinyl Chloride	1	U
75-00-3	Chloroethane	1	U
75-09-2	Methylene Chloride	2	U
67-64-1	Acetone	5	U
75-15-0	Carbon Disulfide	1	U
75-35-4	1,1-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
67-66-3	Chloroform	1	U
107-06-2	1,2-Dichloroethane	1	U
78-93-3	2-Butanone	5	U
74-97-5	Bromochloromethane	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
75-27-4	Bromodichloromethane	1	U
78-87-5	1,2-Dichloropropane	1	U
10061-01-5	cis-1,3-Dichloropropene	1	U
79-01-6	Trichloroethene	1	U
124-48-1	Dibromochloromethane	1	U
79-00-5	1,1,2-Trichloroethane	1	U
71-43-2	Benzene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
75-25-2	Bromoform	1	U
108-10-1	4-Methyl-2-Pentanone	5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	1	U
79-34-5	1,1,2,2-Tetrachloroethane	1	U
106-93-4	1,2-Dibromoethane	1	U
108-88-3	Toluene	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
100-42-5	Styrene	1	U
1330-20-7	Xylene (total)	1	U
541-73-1	1,3-Dichlorobenzene	1	U
106-46-7	1,4-Dichlorobenzene	1	U
95-50-1	1,2-Dichlorobenzene	1	U
96-12-8	1,2-Dibromo-3-chloropropane	1	U

APPENDIX A.1.2
GROUNDWATER DATA
1996 Data

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1-AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300742

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300742DV.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	50	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	50	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	450	E
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	230	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	50	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	50	U
127-18-4	Tetrachloroethene	74	
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U
75-25-2	Bromoform	5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1-AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300742

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300742DV.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 10.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	5	U

000055

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1-ANDL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300742D1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300742D2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	100	U
75-35-4	1,1-Dichloroethene	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	100	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	450	D
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	230	D
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
108-10-1	4-Methyl-2-Pentanone	100	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	77	D
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U

000056

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1-ANDL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300742D1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300742D2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	U

000057

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NC.

MWLAN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300611

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300611I2V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	1	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300611

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300611I2V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1AN96DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300611D1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300611DV.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
67-64-1	Acetone	10	U
75-35-4	1,1-Dichloroethene	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	7	JD
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
107-06-2	1,2-Dichloroethane	1	U
71-43-2	Benzene	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	10	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	1	U
124-48-1	Dibromochloromethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U

1A-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW1AN96DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300611D1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300611DV.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	1	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300595

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300595V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300595

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300595V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300589

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300589DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 34.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	17	U
75-01-4	Vinyl Chloride	17	U
74-83-9	Bromomethane	17	U
75-00-3	Chloroethane	17	U
67-64-1	Acetone	170	U
75-35-4	1,1-Dichloroethene	17	U
156-60-5	trans-1,2-Dichloroethene	17	U
75-15-0	Carbon Disulfide	17	U
75-09-2	Methylene Chloride	17	U
75-34-3	1,1-Dichloroethane	17	U
156-59-2	cis-1,2-Dichloroethene	250	
78-93-3	2-Butanone	170	U
67-66-3	Chloroform	17	U
71-55-6	1,1,1-Trichloroethane	350	
56-23-5	Carbon Tetrachloride	17	U
107-06-2	1,2-Dichloroethane	17	U
71-43-2	Benzene	17	U
79-01-6	Trichloroethene	590	
78-87-5	1,2-Dichloropropane	17	U
75-27-4	Bromodichloromethane	17	U
108-10-1	4-Methyl-2-Pentanone	170	U
10061-01-5	cis-1,3-Dichloropropene	17	U
108-88-3	Toluene	17	U
10061-02-6	trans-1,3-Dichloropropene	17	U
79-00-5	1,1,2-Trichloroethane	17	U
591-78-6	2-Hexanone	170	U
127-18-4	Tetrachloroethene	430	
124-48-1	Dibromochloromethane	17	U
108-90-7	Chlorobenzene	17	U
100-41-4	Ethylbenzene	17	U
1330-20-7	Xylene (total)	17	U
100-42-5	Styrene	17	U
75-25-2	Bromoform	17	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300589

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300589DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 34.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	17	U

000071

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NC.

MW3AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300734

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300734V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	1	
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	1	
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.8	
79-01-6	Trichloroethene	4	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	3	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	5	
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.9	
100-41-4	Ethylbenzene	0.5	
1330-20-7	Xylene (total)	2	
100-42-5	Styrene	0.9	
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300734

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300734V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	1	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3ANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300734R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300734I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3ANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300734R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300734I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300735

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300735V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.6	
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.4	J
79-01-6	Trichloroethene	2	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	2	
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.7	
100-42-5	Styrene	0.4	J
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300735

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300735V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3DANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300735R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300735I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW3DANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300735R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300735I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300738

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300738V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300738

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300738V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300584

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300584DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 16.7

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	8	U
75-01-4	Vinyl Chloride	-11	
74-83-9	Bromomethane	8	U
75-00-3	Chloroethane	8	U
67-64-1	Acetone	-84	U
75-35-4	1,1-Dichloroethene	8	U
156-60-5	trans-1,2-Dichloroethene	8	U
75-15-0	Carbon Disulfide	8	U
75-09-2	Methylene Chloride	8	U
75-34-3	1,1-Dichloroethane	-27	
156-59-2	cis-1,2-Dichloroethene	-150	
78-93-3	2-Butanone	-84	U
67-66-3	Chloroform	8	U
71-55-6	1,1,1-Trichloroethane	-110	
56-23-5	Carbon Tetrachloride	8	U
107-06-2	1,2-Dichloroethane	8	U
71-43-2	Benzene	8	U
79-01-6	Trichloroethene	-280	
78-87-5	1,2-Dichloropropane	8	U
75-27-4	Bromodichloromethane	8	U
108-10-1	4-Methyl-2-Pentanone	-84	U
10061-01-5	cis-1,3-Dichloropropene	8	U
108-88-3	Toluene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
79-00-5	1,1,2-Trichloroethane	8	U
591-78-6	2-Hexanone	-84	U
127-18-4	Tetrachloroethene	-110	
124-48-1	Dibromochloromethane	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
1330-20-7	Xylene (total)	8	U
100-42-5	Styrene	8	U
75-25-2	Bromoform	8	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300584

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300584DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 16.7

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	8	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300584R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300584D3V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 12.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	11	
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	62	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	25	
156-59-2	cis-1,2-Dichloroethene	150	
78-93-3	2-Butanone	62	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	110	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	280	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	62	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	62	U
127-18-4	Tetrachloroethene	100	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U
75-25-2	Bromoform	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300584R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300584D3V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 12.5

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DANB

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300585

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300585DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 14.7

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	11	
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	74	U
75-35-4	1,1-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-15-0	Carbon Disulfide	7	U
75-09-2	Methylene Chloride	7	U
75-34-3	1,1-Dichloroethane	28	
156-59-2	cis-1,2-Dichloroethene	140	
78-93-3	2-Butanone	74	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	130	
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	320	
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	74	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	17	
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	74	U
127-18-4	Tetrachloroethene	110	
124-48-1	Dibromochloromethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylene (total)	7	U
100-42-5	Styrene	7	U
75-25-2	Bromoform	7	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DANB

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300585

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300585DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 14.7

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	7	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4D2AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300586

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300586I2V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4D2AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300586

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300586I2V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5-AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300740

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300740V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.7	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.3	J
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5-AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300740

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300740V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5-ANB

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300741

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300741V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.8	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5-ANB

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300741

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300741V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300613

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300613V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300613

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300613V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5AN96B

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300614

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300614V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5AN96B

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300614

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300614V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300591

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300591DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
75-01-4	Vinyl Chloride	10	U
74-83-9	Bromomethane	10	U
75-00-3	Chloroethane	10	U
67-64-1	Acetone	100	U
75-35-4	1,1-Dichloroethene	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-15-0	Carbon Disulfide	10	U
75-09-2	Methylene Chloride	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	100	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	380	
56-23-5	Carbon Tetrachloride	10	U
107-06-2	1,2-Dichloroethane	10	U
71-43-2	Benzene	10	U
79-01-6	Trichloroethene	78	
78-87-5	1,2-Dichloropropane	10	U
75-27-4	Bromodichloromethane	10	U
108-10-1	4-Methyl-2-Pentanone	100	U
10061-01-5	cis-1,3-Dichloropropene	10	U
108-88-3	Toluene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
79-00-5	1,1,2-Trichloroethane	10	U
591-78-6	2-Hexanone	100	U
127-18-4	Tetrachloroethene	10	U
124-48-1	Dibromochloromethane	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (total)	10	U
100-42-5	Styrene	10	U
75-25-2	Bromoform	10	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300591

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300591DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	10	U

000055

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300612

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300612V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300612

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300612V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

000057

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6-DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300865

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300865V.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.4	J
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6-DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300865

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300865V.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300736

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300736V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.4	J
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	1	
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	2	
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300736

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300736V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7ANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300736R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300736I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	1	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7ANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300736R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300736I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7-AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300744

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300744V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.3	J
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7-AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300744

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300744V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300594

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300594I2V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	5	
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

000035

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300594

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300594I2V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

000089

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300609

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300609V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300609

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300609V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

300691

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300610

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300610D2V.D

Level: (Low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 2.6

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	1	U
75-01-4	Vinyl Chloride	1	U
74-83-9	Bromomethane	1	U
75-00-3	Chloroethane	1	U
67-64-1	Acetone	-13	U
75-35-4	1,1-Dichloroethene	- 5	
156-60-5	trans-1,2-Dichloroethene	- 4	
75-15-0	Carbon Disulfide	1	U
75-09-2	Methylene Chloride	1	U
75-34-3	1,1-Dichloroethane	- 3	
156-59-2	cis-1,2-Dichloroethene	- 48	
78-93-3	2-Butanone	- 14	
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
56-23-5	Carbon Tetrachloride	1	U
107-06-2	1,2-Dichloroethane	1	U
71-43-2	Benzene	1	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	1	U
75-27-4	Bromodichloromethane	1	U
108-10-1	4-Methyl-2-Pentanone	-13	U
10061-01-5	cis-1,3-Dichloropropene	1	U
108-88-3	Toluene	1	J
10061-02-6	trans-1,3-Dichloropropene	1	U
79-00-5	1,1,2-Trichloroethane	1	U
591-78-6	2-Hexanone	- 13	U
127-18-4	Tetrachloroethene	1	U
124-48-1	Dibromochloromethane	1	U
108-90-7	Chlorobenzene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (total)	1	U
100-42-5	Styrene	1	U
75-25-2	Bromoform	1	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300610

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300610D2V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 2.6

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	1	U

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1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8-DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300864

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300864V.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

000080

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8-DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300864

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300864V.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: not dec. _____ Data Analyzed: 05/21/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300605

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300605V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

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1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300605

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300605V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300607

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300607V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300607

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300607V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300739

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300739V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	4	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300739

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300739V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/20/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11ANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300739R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300739I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	3	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11ANRE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300739R1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300739I2V.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: not dec. _____ Data Analyzed: 05/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300588

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300588V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

000054

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300588

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300588V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW13AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300582

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300582V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

JUU056

1A-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW13AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300582

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300582V.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

JUU057

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300608

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300608V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	0.5	U
75-01-4	Vinyl Chloride	0.5	U
74-83-9	Bromomethane	0.5	U
75-00-3	Chloroethane	0.5	U
67-64-1	Acetone	5	U
75-35-4	1,1-Dichloroethene	0.5	U
156-60-5	trans-1,2-Dichloroethene	0.5	U
75-15-0	Carbon Disulfide	0.5	U
75-09-2	Methylene Chloride	0.5	U
75-34-3	1,1-Dichloroethane	0.5	U
156-59-2	cis-1,2-Dichloroethene	0.5	U
78-93-3	2-Butanone	5	U
67-66-3	Chloroform	0.5	U
71-55-6	1,1,1-Trichloroethane	0.5	U
56-23-5	Carbon Tetrachloride	0.5	U
107-06-2	1,2-Dichloroethane	0.5	U
71-43-2	Benzene	0.5	U
79-01-6	Trichloroethene	0.5	U
78-87-5	1,2-Dichloropropane	0.5	U
75-27-4	Bromodichloromethane	0.5	U
108-10-1	4-Methyl-2-Pentanone	5	U
10061-01-5	cis-1,3-Dichloropropene	0.5	U
108-88-3	Toluene	0.5	U
10061-02-6	trans-1,3-Dichloropropene	0.5	U
79-00-5	1,1,2-Trichloroethane	0.5	U
591-78-6	2-Hexanone	5	U
127-18-4	Tetrachloroethene	0.5	U
124-48-1	Dibromochloromethane	0.5	U
108-90-7	Chlorobenzene	0.5	U
100-41-4	Ethylbenzene	0.5	U
1330-20-7	Xylene (total)	0.5	U
100-42-5	Styrene	0.5	U
75-25-2	Bromoform	0.5	U

300058

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14AN96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300608

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300608V.D

Level: (low/med) LOW Date Received: 05/10/96

% Moisture: not dec. _____ Data Analyzed: 05/16/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	0.5	U

300608

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWP1AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300587

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300587DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 76.9

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	38	U
75-01-4	Vinyl Chloride	38	U
74-83-9	Bromomethane	38	U
75-00-3	Chloroethane	38	U
67-64-1	Acetone	380	U
75-35-4	1,1-Dichloroethene	38	U
156-60-5	trans-1,2-Dichloroethene	38	U
75-15-0	Carbon Disulfide	38	U
75-09-2	Methylene Chloride	38	U
75-34-3	1,1-Dichloroethane	38	U
156-59-2	cis-1,2-Dichloroethene	38	U
78-93-3	2-Butanone	380	U
67-66-3	Chloroform	38	U
71-55-6	1,1,1-Trichloroethane	720	
56-23-5	Carbon Tetrachloride	38	U
107-06-2	1,2-Dichloroethane	38	U
71-43-2	Benzene	38	U
79-01-6	Trichloroethene	1400	
78-87-5	1,2-Dichloropropane	38	U
75-27-4	Bromodichloromethane	38	U
108-10-1	4-Methyl-2-Pentanone	380	U
10061-01-5	cis-1,3-Dichloropropene	38	U
108-88-3	Toluene	38	U
10061-02-6	trans-1,3-Dichloropropene	38	U
79-00-5	1,1,2-Trichloroethane	38	U
591-78-6	2-Hexanone	380	U
127-18-4	Tetrachloroethene	540	
124-48-1	Dibromochloromethane	38	U
108-90-7	Chlorobenzene	38	U
100-41-4	Ethylbenzene	38	U
1330-20-7	Xylene (total)	38	U
100-42-5	Styrene	38	U
75-25-2	Bromoform	38	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MWP1AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300587

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: L300587DV.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: not dec. _____ Data Analyzed: 05/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 76.9

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
79-34-5	1,1,2,2-Tetrachloroethane	38	U

000005

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300742

Sample wt/vol: 990 (g/mL) ML Lab File ID: R300742S.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/20/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300742

Sample wt/vol: 990 (g/mL) ML Lab File ID: R300742S.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/20/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW2DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300589

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300589S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chlorcethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW2DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300589

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300589S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300584

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300584S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300584

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300584S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4D2AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300586

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300586S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW4D2AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300586

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300586S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300740

Sample wt/vol: 990 (g/mL) ML Lab File ID: R300740S.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/20/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300740

Sample wt/vol: 990 (g/mL) ML Lab File ID: R300740S.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/20/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5ANB

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300741

Sample wt/vol: 995 (g/mL) ML Lab File ID: R300741S.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/20/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-5ANB

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300741

Sample wt/vol: 995 (g/mL) ML Lab File ID: R300741S.D

Level: (low/med) LOW Date Received: 05/14/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/20/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300591

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300591S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6AN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58394

Matrix: (soil/water) WATER Lab Sample ID: 300591

Sample wt/vol: 1000 (g/mL) ML Lab File ID: U300591S.D

Level: (low/med) LOW Date Received: 05/09/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/13/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/18/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300865

Sample wt/vol: 990 (g/mL) ML Lab File ID: R300865S.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-6DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300865

Sample wt/vol: 990 (g/mL) ML Lab File ID: R300865S.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-8DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300864

Sample wt/vol: 1000 (g/mL) ML Lab File ID: R300864S.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-Methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-8DAN

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58427

Matrix: (soil/water) WATER Lab Sample ID: 300864

Sample wt/vol: 1000 (g/mL) ML Lab File ID: R3C0864S.D

Level: (low/med) LOW Date Received: 05/15/96

% Moisture: _____ decanted: (Y/N)___ Date Extracted:05/16/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/21/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW-1AN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58427_

Matrix (soil/water): WATER Lab Sample ID: 300742

Level (low/med): LOW__ Date Received: 05/14/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	344			P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	191	B		P
7440-41-7	Beryllium	0.54	B		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	124000			P
7440-47-3	Chromium	5.2	B		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	6.4	B		P
7439-89-6	Iron	1550			P
7439-92-1	Lead	1.9	B		P
7439-95-4	Magnesium	36300			P
7439-96-5	Manganese	22.4			P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	3670	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	144000			P
7440-28-0	Thallium	0.60	U	W	F
7440-62-2	Vanadium	1.6	B		P
7440-66-6	Zinc	12.6	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW-1ANB

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58427_

Matrix (soil/water): WATER Lab Sample ID: 300743

Level (low/med): LOW__ Date Received: 05/14/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	317			P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	183	B		P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	119000			P
7440-47-3	Chromium	5.4	B		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	939			P
7439-92-1	Lead	1.1	U		P
7439-95-4	Magnesium	34800			P
7439-96-5	Manganese	13.3	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	3560	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	141000			P
7440-28-0	Thallium	0.60	U	W	F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	5.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW2DAN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58394_

Matrix (soil/water): WATER Lab Sample ID: 300589

Level (low/med): LOW__ Date Received: 05/09/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19.5	U		P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	143	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	115000			P
7440-47-3	Chromium	1.4	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	102			P
7439-92-1	Lead	1.1	U		P
7439-95-4	Magnesium	37000			P
7439-96-5	Manganese	3.1	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.7	U		P
7440-09-7	Potassium	2280	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	54300			P
7440-28-0	Thallium	0.60	U	W	F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	6.4	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW2DANB

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58394_

Matrix (soil/water): WATER Lab Sample ID: 300590

Level (low/med): LOW__ Date Received: 05/09/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	29.5	B		P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	143	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	117000			P
7440-47-3	Chromium	1.4	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	2.2	B		P
7439-89-6	Iron	126			P
7439-92-1	Lead	1.1	U		P
7439-95-4	Magnesium	37200			P
7439-96-5	Manganese	3.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.7	U		P
7440-09-7	Potassium	2300	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	55000			P
7440-28-0	Thallium	0.60	U	W	F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	2.7	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW4DAN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58394_

Matrix (soil/water): WATER Lab Sample ID: 300584

Level (low/med): LOW__ Date Received: 05/09/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	42.1	B		P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	150	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	128000			P
7440-47-3	Chromium	1.4	U		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	3.1	B		P
7439-89-6	Iron	109			P
7439-92-1	Lead	1.1	U		P
7439-95-4	Magnesium	39800			P
7439-96-5	Manganese	5.2	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.0	B		P
7440-09-7	Potassium	2670	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	36400			P
7440-28-0	Thallium	0.60	U	W	F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	12.8	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW4D2AN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58394_

Matrix (soil/water): WATER Lab Sample ID: 300586

Level (low/med): LOW__ Date Received: 05/09/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	19.5	U		P
7440-36-0	Antimony_	2.3	U		P
7440-38-2	Arsenic__	3.6	U		P
7440-39-3	Barium___	114	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	135000			P
7440-47-3	Chromium_	1.4	U		P
7440-48-4	Cobalt___	1.1	U		P
7440-50-8	Copper___	2.3	B		P
7439-89-6	Iron_____	125			P
7439-92-1	Lead_____	1.1	U		P
7439-95-4	Magnesium	41700			P
7439-96-5	Manganese	64.0			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	1.7	U		P
7440-09-7	Potassium	3990	B		P
7782-49-2	Selenium_	3.5	U		P
7440-22-4	Silver___	1.2	U		P
7440-23-5	Sodium___	34000			P
7440-28-0	Thallium_	0.60	U		F
7440-62-2	Vanadium_	1.3	U		P
7440-66-6	Zinc_____	7.5	B		P
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW-5AN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58427_

Matrix (soil/water): WATER Lab Sample ID: 300740

Level (low/med): LOW__ Date Received: 05/14/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	73.4	B		P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	185	B		P
7440-41-7	Beryllium	0.48	B		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	124000			P
7440-47-3	Chromium	2.7	B		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	324			P
7439-92-1	Lead	1.8	B		P
7439-95-4	Magnesium	39800			P
7439-96-5	Manganese	6.6	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	1.7	U		P
7440-09-7	Potassium	3340	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	40700			P
7440-28-0	Thallium	0.60	U		F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	9.5	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW6AN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58394_

Matrix (soil/water): WATER Lab Sample ID: 300591

Level (low/med): LOW__ Date Received: 05/09/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	19.5	U		P
7440-36-0	Antimony	2.3	U		P
7440-38-2	Arsenic	3.6	U		P
7440-39-3	Barium	194	B		P
7440-41-7	Beryllium	0.20	U		P
7440-43-9	Cadmium	0.40	U		P
7440-70-2	Calcium	132000			P
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt	1.1	U		P
7440-50-8	Copper	2.7	B		P
7439-89-6	Iron	91.3	B		P
7439-92-1	Lead	1.1	U		P
7439-95-4	Magnesium	42400			P
7439-96-5	Manganese	1.2	B		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	2.1	B		P
7440-09-7	Potassium	3460	B		P
7782-49-2	Selenium	3.5	U		P
7440-22-4	Silver	1.2	U		P
7440-23-5	Sodium	43200			P
7440-28-0	Thallium	0.60	U	W	F
7440-62-2	Vanadium	1.3	U		P
7440-66-6	Zinc	2.5	B		P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

000014

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW-6DAN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58427_

Matrix (soil/water): WATER Lab Sample ID: 300865

Level (low/med): LOW__ Date Received: 05/15/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	5710	_		P_
7440-36-0	Antimony_	2.3	U		P_
7440-38-2	Arsenic__	10.8			P_
7440-39-3	Barium___	159	B		P_
7440-41-7	Beryllium	0.58	B		P_
7440-43-9	Cadmium__	0.40	B		P_
7440-70-2	Calcium__	149000			P_
7440-47-3	Chromium_	31.8	_		P_
7440-48-4	Cobalt___	4.9	B		P_
7440-50-8	Copper___	26.0	_		P_
7439-89-6	Iron_____	15600	_		P_
7439-92-1	Lead_____	16.8	_		P_
7439-95-4	Magnesium	47000	_		P_
7439-96-5	Manganese	194	_		P_
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	35.4	B		P_
7440-09-7	Potassium	6300	_		P_
7782-49-2	Selenium_	5.6			P_
7440-22-4	Silver___	1.2	U		P_
7440-23-5	Sodium___	38400			P_
7440-28-0	Thallium_	0.60	U		F_
7440-62-2	Vanadium_	34.7	B		P_
7440-66-6	Zinc_____	90.5	_		P_
_____	Cyanide__		_		NR
_____	_____		_		__

Color Before: BROWN____ Clarity Before: CLOUDY Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

MW-8DAN

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58427_

Matrix (soil/water): WATER Lab Sample ID: 300864

Level (low/med): LOW__ Date Received: 05/15/96

% Solids: __0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L_

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	185	B		P
7440-36-0	Antimony_	2.3	U		P
7440-38-2	Arsenic__	3.6	U		P
7440-39-3	Barium___	144	B		P
7440-41-7	Beryllium	0.42	B		P
7440-43-9	Cadmium__	0.40	U		P
7440-70-2	Calcium__	118000			P
7440-47-3	Chromium_	1.8	B		P
7440-48-4	Cobalt___	1.1	U		P
7440-50-8	Copper___	1.0	U		P
7439-89-6	Iron_____	1650			P
7439-92-1	Lead_____	1.1	B		P
7439-95-4	Magnesium	35400			P
7439-96-5	Manganese	85.5			P
7439-97-6	Mercury__	0.20	U		CV
7440-02-0	Nickel___	2.5	B		P
7440-09-7	Potassium	3050	B		P
7782-49-2	Selenium_	3.5	U		P
7440-22-4	Silver___	1.2	U		P
7440-23-5	Sodium___	31200			P
7440-28-0	Thallium_	0.60	U		P
7440-62-2	Vanadium_	1.3	U		P
7440-66-6	Zinc_____	9.3	B		P
_____	Cyanide__	_____			NR
_____	_____	_____			

Color Before: COLORLESS Clarity Before: CLEAR_ Texture: _____

Color After: COLORLESS Clarity After: CLEAR_ Artifacts: _____

Comments:

_____

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_____

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APPENDIX A.2
SOIL DATA

APPENDIX A.2.1

SOIL DATA

April-May 1994 Data

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220455
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-10, 05/01/94 at 1400 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	6 U	chloromethane	12 U
carbon tetrachloride	6 U	bromomethane	12 U
chlorobenzene	6 U	bromoform	6 U
1,2-dichloroethane	6 U	bromodichloromethane	6 U
1,1,1-trichloroethane	6 U	dibromochloromethane	6 U
1,1-dichloroethane	6 U	tetrachloroethene	5J
1,1,2-trichloroethane	6 U	toluene	6 U
1,1,2,2-tetrachloroethane	6 U	trichloroethene	6
chloroethane	12 U	vinyl chloride	12 U
chloroform	6 U	acetone	12 U
1,1-dichloroethene	6 U	2-butanone	12 U
1,2-dichloroethenes	6 U	carbon disulfide	6 U
1,2-dichloropropane	6 U	2-hexanone	12 U
trans-1,3-dichloropropene	6 U	4-methyl-2-pentanone	12 U
cis-1,3-dichloropropene	6 U	styrene	6 U
ethylbenzene	6 U	vinyl acetate	12 U
methylene chloride	6 U	m & p-xylenes	12 U
cis-1,2-dichloroethene	6 U	o-xylene	6 U
trans-1,2-dichloroethene	6 U		

% Solids = 86

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	85
toluene-d_8	114
p-bromofluorobenzene	90

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220456
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 14 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-15, 05/02/94 at 0815 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	6 U	chloromethane	13 U
carbon tetrachloride	6 U	bromomethane	13 U
chlorobenzene	6 U	bromoform	6 U
1,2-dichloroethane	6 U	bromodichloromethane	6 U
1,1,1-trichloroethane	6 U	dibromochloromethane	6 U
1,1-dichloroethane	6 U	tetrachloroethene	6 U
1,1,2-trichloroethane	6 U	toluene	6 U
1,1,2,2-tetrachloroethane	6 U	trichloroethene	6 U
chloroethane	13 U	vinyl chloride	13 U
chloroform	6 U	acetone	32B
1,1-dichloroethene	6 U	2-butanone	5J
1,2-dichloroethenes	6 U	carbon disulfide	6 U
1,2-dichloropropane	6 U	2-hexanone	13 U
trans-1,3-dichloropropene	6 U	4-methyl-2-pentanone	13 U
cis-1,3-dichloropropene	6 U	styrene	6 U
ethylbenzene	6 U	vinyl acetate	13 U
methylene chloride	6 U	m & p-xylenes	13 U
cis-1,2-dichloroethene	6 U	o-xylene	6 U
trans-1,2-dichloroethene	6 U		

% Solids = 79

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	79
toluene-d_8	105
p-bromofluorobenzene	102

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here i not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
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New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220457
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 14 & 18 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-19, 05/02/94 at 0920 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	6 U	chloromethane	12 U
carbon tetrachloride	6 U	bromomethane	12 U
chlorobenzene	6 U	bromoform	6 U
1,2-dichloroethane	6 U	bromodichloromethane	6 U
1,1,1-trichloroethane	6 U	dibromochloromethane	6 U
1,1-dichloroethane	6 U	tetrachloroethene	2J
1,1,2-trichloroethane	6 U	toluene	6 U
1,1,2,2-tetrachloroethane	6 U	trichloroethene	1J
chloroethane	12 U	vinyl chloride	12 U
chloroform	6 U	acetone	12 U
1,1-dichloroethene	6 U	2-butanone	12 U
1,2-dichloroethenes	6 U	carbon disulfide	6 U
1,2-dichloropropane	6 U	2-hexanone	12 U
trans-1,3-dichloropropene	6 U	4-methyl-2-pentanone	12 U
cis-1,3-dichloropropene	6 U	styrene	6 U
ethylbenzene	6 U	vinyl acetate	12 U
methylene chloride	6 U	m & p-xylenes	12 U
cis-1,2-dichloroethene	6 U	o-xylene	6 U
trans-1,2-dichloroethene	6 U		

% Solids = 81

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	98
toluene-d_8	105
p-bromofluorobenzene	101

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

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South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220458
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 14, 16 & 18 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-20, 05/02/94 at 1000 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	6 U	chloromethane	12 U
carbon tetrachloride	6 U	bromomethane	12 U
chlorobenzene	6 U	bromoform	6 U
1,2-dichloroethane	6 U	bromodichloromethane	6 U
1,1,1-trichloroethane	6 U	dibromochloromethane	6 U
1,1-dichloroethane	6 U	tetrachloroethene	6 U
1,1,2-trichloroethane	6 U	toluene	6 U
1,1,2,2-tetrachloroethane	6 U	trichloroethene	6 U
chloroethane	12 U	vinyl chloride	12 U
chloroform	6 U	acetone	12 U
1,1-dichloroethene	6 U	2-butanone	12 U
1,2-dichloroethenes	6 U	carbon disulfide	6 U
1,2-dichloropropane	6 U	2-hexanone	12 U
trans-1,3-dichloropropene	6 U	4-methyl-2-pentanone	12 U
cis-1,3-dichloropropene	6 U	styrene	6 U
ethylbenzene	6 U	vinyl acetate	12 U
methylene chloride	6 U	m & p-xylenes	12 U
cis-1,2-dichloroethene	6 U	o-xylene	6 U
trans-1,2-dichloroethene	6 U		

% Solids = 83

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	100
toluene-d_8	111
p-bromofluorobenzene	89

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220459
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 14, 16, 18 & 19 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-30, 05/02/94 at 1645 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	31 U	chloromethane	62 U
carbon tetrachloride	31 U	bromomethane	62 U
chlorobenzene	31 U	bromoform	31 U
1,2-dichloroethane	31 U	bromodichloromethane	31 U
1,1,1-trichloroethane	200	dibromochloromethane	31 U
1,1-dichloroethane	31 U	tetrachloroethene	230
1,1,2-trichloroethane	31 U	toluene	31 U
1,1,2,2-tetrachloroethane	31 U	trichloroethene	1300
chloroethane	62 U	vinyl chloride	62 U
chloroform	31 U	acetone	62 U
1,1-dichloroethene	13J	2-butanone	62 U
1,2-dichloroethenes	31 U	carbon disulfide	31 U
1,2-dichloropropane	31 U	2-hexanone	62 U
trans-1,3-dichloropropene	31 U	4-methyl-2-pentanone	62 U
cis-1,3-dichloropropene	31 U	styrene	31 U
ethylbenzene	31 U	vinyl acetate	62 U
methylene chloride	31 U	m & p-xylenes	62 U
cis-1,2-dichloroethene	31 U	o-xylene	31 U
trans-1,2-dichloroethene	31 U		

% Solids = 80

The sample was diluted 5.0 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	94
toluene-d_8	98
p-bromofluorobenzene	93

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

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South Burlington, VT 05403

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Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220460
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 17 & 18 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-31, 05/03/94 at 0930 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	6 U	chloromethane	12 U
carbon tetrachloride	6 U	bromomethane	12 U
chlorobenzene	6 U	bromoform	6 U
1,2-dichloroethane	6 U	bromodichloromethane	6 U
1,1,1-trichloroethane	6 U	dibromochloromethane	6 U
1,1-dichloroethane	6 U	tetrachloroethene	6 U
1,1,2-trichloroethane	6 U	toluene	6 U
1,1,2,2-tetrachloroethane	6 U	trichloroethene	6 U
chloroethane	12 U	vinyl chloride	12 U
chloroform	6 U	acetone	12 U
1,1-dichloroethene	6 U	2-butanone	12 U
1,2-dichloroethenes	6 U	carbon disulfide	6 U
1,2-dichloropropane	6 U	2-hexanone	12 U
trans-1,3-dichloropropene	6 U	4-methyl-2-pentanone	12 U
cis-1,3-dichloropropene	6 U	styrene	6 U
ethylbenzene	6 U	vinyl acetate	12 U
methylene chloride	6 U	m & p-xylenes	12 U
cis-1,2-dichloroethene	6 U	o-xylene	6 U
trans-1,2-dichloroethene	6 U		

% Solids = 86

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	99
toluene-d_8	103
p-bromofluorobenzene	100

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220461
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-39, 05/03/94 at 1320 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	700 U	chloromethane	1400 U
carbon tetrachloride	700 U	bromomethane	1400 U
chlorobenzene	700 U	bromoform	700 U
1,2-dichloroethane	700 U	bromodichloromethane	700 U
1,1,1-trichloroethane	380J	dibromochloromethane	700 U
1,1-dichloroethane	700 U	tetrachloroethene	6100
1,1,2-trichloroethane	700 U	toluene	700 U
1,1,2,2-tetrachloroethane	700 U	trichloroethene	2400
chloroethane	1400 U	vinyl chloride	1400 U
chloroform	700 U	acetone	620JB
1,1-dichloroethene	700 U	2-butanone	590JB
1,2-dichloroethenes	700 U	carbon disulfide	700 U
1,2-dichloropropane	700 U	2-hexanone	1400 U
trans-1,3-dichloropropene	700 U	4-methyl-2-pentanone	1400 U
cis-1,3-dichloropropene	700 U	styrene	700 U
ethylbenzene	700 U	vinyl acetate	1400 U
methylene chloride	700 U	m & p-xylenes	1400 U
cis-1,2-dichloroethene	700 U	o-xylene	700 U
trans-1,2-dichloroethene	700 U		

% Solids = 91

The sample was diluted 125 fold for analysis.

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	80
toluene-d_8	92
p-bromofluorobenzene	87

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

Inchcape Testing Services
Aquatec Laboratories

Laboratory Locations
55 South Park Drive
Colchester, VT 05446

75 Green Mountain Drive
South Burlington, VT 05403

150 Herman Melville Boulevard
New Bedford, MA 02740

Analytical Report

Date: 01 June 1994
Aquatec Lab No.: 220462
ETR No.: 43989; Project No.: 94000
Sample Received On: 06 May 1994; Analyzed On: 17 May 1994
Sample Identification: Metcalf & Eddy, Inc., soil sample labeled SS-43, 05/03/94 at 1525 hours.

Volatile Organic Compounds in ug/Kg dry
EPA Method 8260

benzene	6 U	chloromethane	11 U
carbon tetrachloride	6 U	bromomethane	11 U
chlorobenzene	6 U	bromoform	6 U
1,2-dichloroethane	6 U	bromodichloromethane	6 U
1,1,1-trichloroethane	6 U	dibromochloromethane	6 U
1,1-dichloroethane	6 U	tetrachloroethene	6 U
1,1,2-trichloroethane	6 U	toluene	6 U
1,1,2,2-tetrachloroethane	6 U	trichloroethene	6 U
chloroethane	11 U	vinyl chloride	11 U
chloroform	6 U	acetone	8J
1,1-dichloroethene	6 U	2-butanone	11 U
1,2-dichloroethenes	6 U	carbon disulfide	6 U
1,2-dichloropropane	6 U	2-hexanone	11 U
trans-1,3-dichloropropene	6 U	4-methyl-2-pentanone	11 U
cis-1,3-dichloropropene	6 U	styrene	6 U
ethylbenzene	6 U	vinyl acetate	11 U
methylene chloride	6 U	m & p-xylenes	11 U
cis-1,2-dichloroethene	6 U	o-xylene	6 U
trans-1,2-dichloroethene	6 U		

% Solids = 91

Summary of Surrogate Recoveries

	% Rec
1,2-dichloroethane-d_4	98
toluene-d_8	104
p-bromofluorobenzene	110

Key to the letters used to qualify the results of the analysis:

U - The compound was analyzed for but not detected. The number is the method specified reporting limit.

J - The mass spectrum indicates the presence of the compound, but the calculated result is less than the method specified reporting limit.

B - The compound was present in the method blank. The result reported here is not blank corrected.

APPENDIX A.2.2

SOIL DATA

1996 Data

SB 1 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
661 24
B124A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298682

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298682V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 21 Date Analyzed: 05/01/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

000068

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B124A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298682

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298682V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 21 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB1 6-8

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB1 6-8
B168A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298684

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298684V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 17 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B168A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298684

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298684V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 17 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB1 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB1 12-14
B11214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298686

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298686V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 15 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	10	J MLS 5/9/96
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B11214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298686

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298686V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 15 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

000065

SB2 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB2 24
B224

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298691

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298691V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 20 Date Analyzed: 05/01/96

GC Colum.:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12 11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	2	J
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

000090

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B224

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298691

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298691V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 20 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB2 6-8'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B268

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298692

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298692V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 13 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	12	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B268

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298692

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298692V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 13 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SB2 12-14
EPA SAMPLE NO.
SB2 12 14
B21214RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298693R

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N298693I2V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 19 Date Analyzed: 05/13/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	4	JB
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B21214RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298693R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N298693I2V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 19 Date Analyzed: 05/13/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB2 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB2 18-20'
B21820RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 29869431

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N29869I3V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 11 Date Analyzed: 05/13/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	4	JB
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	3	J
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

000058

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B21820RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298694R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N298694I3V.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 11 Date Analyzed: 05/13/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB3 2-4'

EPA SAMPLE NO.

SB324A

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297898

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297898V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB324A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297898

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297898V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 3 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB368A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297894

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297894V.D

Level: low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/23/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

5B3 6-8

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB368A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297894

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297894V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB3 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297913

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O297913I2V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297913

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297913I2V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

000067

SB3 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297914

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297914V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 11 Date Analyzed: 04/23/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	2	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	1	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	1	J
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297914

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297914V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 11 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

534 2-4

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B424A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297916

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297916V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 18 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B424A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297916

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297916V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 18 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB4 2-4' DUP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB4 2-4' DUP
B424SD

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297917

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297917V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 17 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B424SD

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297917

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297917V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 17 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB4 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B468A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297919

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297919V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 17 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	15	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

JUU084

VOLATILE ORGANICS ANALYSIS DATA SHEET

B468A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297919

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297919V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 17 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB4 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B41214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297921

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297921V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	2	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

B41214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297921

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297921V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB4 18-20

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B41820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297922

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297922V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	5	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	13	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	1	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	1	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

B41820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297922

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297922V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB524

B524A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297933

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297933V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	3	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

B524A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297933

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297933V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B568A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297936

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297936V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	25	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

B568A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297936

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297936V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB51214

B51214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297939

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297939I2V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 15 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	1	JB
71-55-6	1,1,1-Trichloroethane	21	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	65	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	10	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

SKC 6/13/96

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B51214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297939

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297939I2V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 15 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

JUC063

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B51820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297941

Sample wt/vol: 2.5 (g/mL) G Lab File ID: C297941DV.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 10 Date Analyzed: 04/24/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
67-64-1	Acetone	22	U
75-35-4	1,1-Dichloroethene	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	22	U
67-66-3	Chloroform	13	J SRC 04/15/96
71-55-6	1,1,1-Trichloroethane	29	
56-23-5	Carbon Tetrachloride	11	U
107-06-2	1,2-Dichloroethane	11	U
71-43-2	Benzene	11	U
79-01-6	Trichloroethene	240	
78-87-5	1,2-Dichloropropane	11	U
75-27-4	Bromodichloromethane	11	U
108-10-1	4-Methyl-2-Pentanone	22	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-88-3	Toluene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
591-78-6	2-Hexanone	22	U
127-18-4	Tetrachloroethene	44	
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (total)	11	U
100-42-5	Styrene	11	U

LA-2

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B51820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297941

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 0297941DV.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 10 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U

SB6 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB624A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297671

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297671V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 13 Date Analyzed: 04/13/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB624A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297671

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297671V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 13 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB6 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB668A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297673

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297673V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB668A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297673

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297673V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 6 12-19

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297685

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297685V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 13 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	4	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	30	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	2	J
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	23	
156-59-2	cis-1,2-Dichloroethene	21	
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297685

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297685V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 13 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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SB6 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 6 18 20
SB61820ARE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297687R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297687I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB61820ARE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297687R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O297687I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

000013

SB7 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB7 24
SB724AFF

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297675R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297675I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 9 Date Analyzed: 04/22/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB724ARE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297675R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O297675I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 9 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

SB7 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB764A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297677

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297677V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 19 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	1	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	1	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB76BA

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297677

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297677V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 19 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

587 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB71214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297689

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297689V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 23 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB71214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297689

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297689V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 23 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB7 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB71820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297691

Sample wt/vol: 1.0 (g/mL) G Lab File ID: C297691I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	29	U
75-01-4	Vinyl Chloride	30	
74-83-9	Bromomethane	29	U
75-00-3	Chloroethane	29	U
67-64-1	Acetone	58	U
75-35-4	1,1-Dichloroethene	29	U
156-60-5	trans-1,2-Dichloroethene	21	J
75-15-0	Carbon Disulfide	29	U
75-09-2	Methylene Chloride	29	U
75-34-3	1,1-Dichloroethane	29	U
540-59-0	1,2-Dichloroethene (total)	640	
156-59-2	cis-1,2-Dichloroethene	600	
78-93-3	2-Butanone	58	U
67-66-3	Chloroform	29	U
71-55-6	1,1,1-Trichloroethane	29	U
56-23-5	Carbon Tetrachloride	29	U
107-06-2	1,2-Dichloroethane	29	U
71-43-2	Benzene	29	U
79-01-6	Trichloroethene	29	U
78-87-5	1,2-Dichloropropane	29	U
75-27-4	Bromodichloromethane	29	U
108-10-1	4-Methyl-2-Pentanone	58	U
10061-01-5	cis-1,3-Dichloropropene	29	U
108-88-3	Toluene	29	U
10061-02-6	trans-1,3-Dichloropropene	29	U
79-00-5	1,1,2-Trichloroethane	29	U
591-78-6	2-Hexanone	58	U
127-18-4	Tetrachloroethene	29	U
124-48-1	Dibromochloromethane	29	U
108-90-7	Chlorobenzene	29	U
100-41-4	Ethylbenzene	29	U
1330-20-7	Xylene (total)	29	U
100-42-5	Styrene	29	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB71820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297691

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0297691I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	29	U
79-34-5	1,1,2,2-Tetrachloroethane	29	U

SB82-4

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ATSB824

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96000

Lab Code: INCHVT Case No.: 96000 SAS No.: SDG No.: 57826

Matrix: soil/water) SOIL Lab Sample ID: 297468

Sample wt/vol: 1.5 (g/mL) G Lab File ID: M297468D2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 13 Date Analyzed: 04/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	19	U
75-01-4	Vinyl Chloride	19	U
74-83-9	Bromomethane	19	U
75-00-3	Chloroethane	19	U
67-64-1	Acetone	38	U
75-35-4	1,1-Dichloroethene	19	U
156-60-5	trans-1,2-Dichloroethene	19	U
75-15-0	Carbon Disulfide	19	U
75-09-2	Methylene Chloride	19	U
75-34-3	1,1-Dichloroethane	19	U
540-59-0	1,2-Dichloroethene (total)	62	
156-59-2	cis-1,2-Dichloroethene	61	
78-93-3	2-Butanone	38	U
67-66-3	Chloroform	19	U
71-55-6	1,1,1-Trichloroethane	19	U
56-23-5	Carbon Tetrachloride	19	U
107-06-2	1,2-Dichloroethane	19	U
71-43-2	Benzene	19	U
79-01-6	Trichloroethene	74	
78-87-5	1,2-Dichloropropane	19	U
75-27-4	Bromodichloromethane	19	U
108-10-1	4-Methyl-2-Pentanone	38	U
10061-01-5	cis-1,3-Dichloropropene	19	U
108-88-3	Toluene	19	U
10061-02-6	trans-1,3-Dichloropropene	19	U
79-00-5	1,1,2-Trichloroethane	19	U
591-78-6	2-Hexanone	38	U
127-18-4	Tetrachloroethene	240	
124-48-1	Dibromochloromethane	19	U
108-90-7	Chlorobenzene	19	U
100-41-4	Ethylbenzene	19	U
1330-20-7	Xylene (total)	19	U
100-42-5	Styrene	19	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ATSB824

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96000

Lab Code: INCHVT Case No.: 96000 SAS No.: SDG No.: 57826

Matrix: (soil/water) SOIL Lab Sample ID: 297468

Sample wt/vol: 1.5 (g/mL) G Lab File ID: M297468D2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 13 Date Analyzed: 04/15/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	19	U
79-34-5	1,1,2,2-Tetrachloroethane	19	U

SB8 6-8'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB868A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297679

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297679V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 20 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	1	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	1	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB868A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297679

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O297679V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 20 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB8 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB81214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297693

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297693V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 18 Date Analyzed: 04/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	3	J
156-59-2	cis-1,2-Dichloroethene	3	J
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	5	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB81214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297693

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297693V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 18 Date Analyzed: 04/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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SB8 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB81820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297695

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297695V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 21 Date Analyzed: 04/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	1	J
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	28	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	1	J
75-15-0	Carbon Disulfide	12	
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	17	
156-59-2	cis-1,2-Dichloroethene	15	
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	2	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	4	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB81820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297695

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297695V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 21 Date Analyzed: 04/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 9 2-4'

EPA SAMPLE NO.

B924

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299119

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299119V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	6	U	J
75-01-4	Vinyl Chloride	6	U	
74-83-9	Bromomethane	6	U	
75-00-3	Chloroethane	6	U	
67-64-1	Acetone	9	J	
75-35-4	1,1-Dichloroethene	6	U	J
156-60-5	trans-1,2-Dichloroethene	6	U	
75-15-0	Carbon Disulfide	6	U	
75-09-2	Methylene Chloride	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
156-59-2	cis-1,2-Dichloroethene	6	U	
78-93-3	2-Butanone	12	U	
67-66-3	Chloroform	6	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
107-06-2	1,2-Dichloroethane	6	U	
71-43-2	Benzene	6	U	
79-01-6	Trichloroethene	6	U	
78-87-5	1,2-Dichloropropane	6	U	
75-27-4	Bromodichloromethane	6	U	
108-10-1	4-Methyl-2-Pentanone	12	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
108-88-3	Toluene	6	U	
10061-02-6	trans-1,3-Dichloropropene	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
591-78-6	2-Hexanone	12	U	
127-18-4	Tetrachloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	6	U	
1330-20-7	Xylene (total)	6	U	
100-42-5	Styrene	6	U	✓

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B924

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299119

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299119V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 96-8

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B968

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299120

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C299120V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 19 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	14	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B968

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299120

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O299120V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 19 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB9 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
B91214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299121

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C299121V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 27 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	20	
75-35-4	1,1-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-15-0	Carbon Disulfide	7	U
75-09-2	Methylene Chloride	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
78-93-3	2-Butanone	14	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	26	
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	10	
124-48-1	Dibromochloromethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylene (total)	7	U
100-42-5	Styrene	7	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B91214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299121

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299121V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 27 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U

SB9 18-20

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB9 18 20

B91820RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299122R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299122I2V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 15 Date Analyzed: 05/14/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	6	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	39	
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B91820RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299122R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299122I2V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 15 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

5310 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1024A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297681

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297681V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 12 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1024A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297681

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297681V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 12 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB10 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO
SB1068A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297683

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297683V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 19 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1068A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57864

Matrix: (soil/water) SOIL Lab Sample ID: 297683

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297683V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 19 Date Analyzed: 04/19/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB10 12-14

LA

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB101214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297697

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297697V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 18 Date Analyzed: 04/17/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	29	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	2	J
156-59-2	cis-1,2-Dichloroethene	2	J
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	17	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	68	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB101214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297697

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297697V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 18 Date Analyzed: 04/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-25-2	Bromoform	6	U	
79-34-5	1,1,2,2-Tetrachloroethane	6	U	J

SB10 18-20

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB101820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297698

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297698V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	61	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	24	
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NC.

SB101820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57867

Matrix: (soil/water) SOIL Lab Sample ID: 297698

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297698V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 14 Date Analyzed: 04/18/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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SB11 2-4'

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB 11 2-4

B1124A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298438

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298438V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	2	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	20	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1124A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298438

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298438V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB11 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 11 68

B1168A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298442

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298442V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1168A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298442

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298442V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB11 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB11 12 14

B11214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298440

Sample wt/vol: 1.0 (g/mL) G Lab File ID: C298440DV.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 22 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	32	U
75-01-4	Vinyl Chloride	32	U
74-83-9	Bromomethane	32	U
75-00-3	Chloroethane	32	U
67-64-1	Acetone	84	
75-35-4	1,1-Dichloroethene	32	U
156-60-5	trans-1,2-Dichloroethene	32	U
75-15-0	Carbon Disulfide	7	J
75-09-2	Methylene Chloride	32	U
75-34-3	1,1-Dichloroethane	32	U
540-59-0	1,2-Dichloroethene (total)	65	
156-59-2	cis-1,2-Dichloroethene	64	
78-93-3	2-Butanone	64	U
67-66-3	Chloroform	32	U
71-55-6	1,1,1-Trichloroethane	15	J
56-23-5	Carbon Tetrachloride	32	U
107-06-2	1,2-Dichloroethane	32	U
71-43-2	Benzene	32	U
79-01-6	Trichloroethene	400	
78-87-5	1,2-Dichloropropane	32	U
75-27-4	Bromodichloromethane	32	U
108-10-1	4-Methyl-2-Pentanone	64	U
10061-01-5	cis-1,3-Dichloropropene	32	U
108-88-3	Toluene	28	J
10061-02-6	trans-1,3-Dichloropropene	32	U
79-00-5	1,1,2-Trichloroethane	32	U
591-78-6	2-Hexanone	64	U
127-18-4	Tetrachloroethene	1100	
124-48-1	Dibromochloromethane	32	U
108-90-7	Chlorobenzene	32	U
100-41-4	Ethylbenzene	32	U
1330-20-7	Xylene (total)	32	U
100-42-5	Styrene	32	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B11214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298440

Sample wt/vol: 1.0 (g/mL) G Lab File ID: O298440DV.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 22 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	32	U
79-34-5	1,1,2,2-Tetrachloroethane	32	U

000040

SB11 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB11 18-20
B11820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298443

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298443EV.D

Level: (low/med) MED Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	780	U	J
75-01-4	Vinyl Chloride	780	U	
74-83-9	Bromomethane	780	U	
75-00-3	Chloroethane	780	U	
67-64-1	Acetone	1500	U	
75-35-4	1,1-Dichloroethene	780	U	
156-60-5	trans-1,2-Dichloroethene	780	U	
75-15-0	Carbon Disulfide	780	U	
75-09-2	Methylene Chloride	780	U	
75-34-3	1,1-Dichloroethane	780	U	
540-59-0	1,2-Dichloroethene (total)	4800		
156-59-2	cis-1,2-Dichloroethene	4600		
78-93-3	2-Butanone	1500	U	
67-66-3	Chloroform	780	U	
71-55-6	1,1,1-Trichloroethane	780	U	
56-23-5	Carbon Tetrachloride	780	U	
107-06-2	1,2-Dichloroethane	780	U	
71-43-2	Benzene	780	U	
79-01-6	Trichloroethene	780	U	
78-87-5	1,2-Dichloropropane	780	U	
75-27-4	Bromodichloromethane	780	U	
108-10-1	4-Methyl-2-Pentanone	1500	U	
10061-01-5	cis-1,3-Dichloropropene	780	U	✓
108-88-3	Toluene	180	J	
10061-02-6	trans-1,3-Dichloropropene	780	U	J
79-00-5	1,1,2-Trichloroethane	780	U	
591-78-6	2-Hexanone	1500	U	
127-18-4	Tetrachloroethene	780	U	
124-48-1	Dibromochloromethane	780	U	
108-90-7	Chlorobenzene	780	U	
100-41-4	Ethylbenzene	490	J	
1330-20-7	Xylene (total)	840		J
100-42-5	Styrene	780	U	

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB11 1820
B11820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298443

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298443EV.D

Level: (low/med) MED Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	780	U
79-34-5	1,1,2,2-Tetrachloroethane	780	U

SB12 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 12 2-4
SB1224A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297714

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297714V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 15 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1224A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297714

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297714V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 15 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

000670

SB 12 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PSB1268A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96000

Lab Code: INCHVT Case No.: 96000 SAS No.: SDG No.: 57826

Matrix: (soil/water) SOIL Lab Sample ID: 297471

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 029747I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 22 Date Analyzed: 04/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PSB1268A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96000

Lab Code: INCHVT Case No.: 96000 SAS No.: SDG No.: 57826

Matrix: (soil/water) SOIL Lab Sample ID: 297471

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297471I2V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 22 Date Analyzed: 04/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

066614

SB 12 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 12 12-14
SB12194A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297716

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297716V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 12 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	3	J
156-59-2	cis-1,2-Dichloroethene	3	J
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	30	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	89	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	73	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB12124A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297716

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297716V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 12 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB12 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB12 18-20'

SB121820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297718

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297718V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 15 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	42	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	1	J
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

000065

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB121820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297718

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O297718V.D

Level: (low/med) LOW Date Received: 04/10/96

% Moisture: not dec. 15 Date Analyzed: 04/22/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

5313 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1324A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297926

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297926V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 17 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1324A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297926

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297926V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 17 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB13 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1368A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297928

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297928V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/24/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1368A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297928

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297928V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 20 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB13 14-16'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1314[illegible]

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297930

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297930V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 13 Date Analyzed: 04/24/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	15	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	1	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	1	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B131416A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297930

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297930V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 13 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB13 16-17'

EPA SAMPLE NO.
SB13 1617

B131617

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297931

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C297931V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 8 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	14	
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	2	J
100-42-5	Styrene	5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B131617

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297931

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297931V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 8 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

SB14 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB14 2U

B1424

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 299109

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299109V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 14 Date Analyzed: 05/08/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1424

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 299109

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299109V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 14 Date Analyzed: 05/08/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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SB14 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB14 6S

B1468

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 299110

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299110V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 17 Date Analyzed: 05/08/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	27	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1468

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 299110

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299110V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 17 Date Analyzed: 05/08/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB14 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B141214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299111

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299111I2V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 10 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	Chloromethane		6	U
75-01-4	Vinyl Chloride		6	U
74-83-9	Bromomethane		6	U
75-00-3	Chloroethane		6	U
67-64-1	Acetone		13	B
75-35-4	1,1-Dichloroethene		6	U
156-60-5	trans-1,2-Dichloroethene		6	U
75-15-0	Carbon Disulfide		6	U
75-09-2	Methylene Chloride		6	U
75-34-3	1,1-Dichloroethane		6	U
540-59-0	1,2-Dichloroethene (total)		1	U
156-59-2	cis-1,2-Dichloroethene		1	U
78-93-3	2-Butanone		11	U
67-66-3	Chloroform		6	U
71-55-6	1,1,1-Trichloroethane		18	
56-23-5	Carbon Tetrachloride		6	U
107-06-2	1,2-Dichloroethane		6	U
71-43-2	Benzene		6	U
79-01-6	Trichloroethene		39	
78-87-5	1,2-Dichloropropane		6	U
75-27-4	Bromodichloromethane		6	U
108-10-1	4-Methyl-2-Pentanone		11	U
10061-01-5	cis-1,3-Dichloropropene		6	U
108-88-3	Toluene		6	U
10061-02-6	trans-1,3-Dichloropropene		6	U
79-00-5	1,1,2-Trichloroethane		6	U
591-78-6	2-Hexanone		11	U
127-18-4	Tetrachloroethene		3	U
124-48-1	Dibromochloromethane		6	U
108-90-7	Chlorobenzene		6	U
100-41-4	Ethylbenzene		6	U
1330-20-7	Xylene (total)		6	U
100-42-5	Styrene		6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B141214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299111

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299111I2V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 10 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-25-2	Bromoform	6	U	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U	↓

SB15 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1524

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299115

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299115V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 13 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	2	J
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	5	J
540-59-0	1,2-Dichloroethene (total)	76	
156-59-2	cis-1,2-Dichloroethene	72	
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	14	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	21	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	10	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1524

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299115

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299115V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 13 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB15 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1568

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299116

Sample wt/vol: 1.0 (g/mL) G Lab File ID: C299116DV.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 9 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	27	U
75-01-4	Vinyl Chloride	27	U
74-83-9	Bromomethane	27	U
75-00-3	Chloroethane	27	U
67-64-1	Acetone	26	J
75-35-4	1,1-Dichloroethene	27	U
156-60-5	trans-1,2-Dichloroethene	27	U
75-15-0	Carbon Disulfide	27	U
75-09-2	Methylene Chloride	27	U
75-34-3	1,1-Dichloroethane	27	U
540-59-0	1,2-Dichloroethene (total)	67	
156-59-2	cis-1,2-Dichloroethene	55	
78-93-3	2-Butanone	55	U
67-66-3	Chloroform	27	U
71-55-6	1,1,1-Trichloroethane	230	
56-23-5	Carbon Tetrachloride	27	U
107-06-2	1,2-Dichloroethane	27	U
71-43-2	Benzene	27	U
79-01-6	Trichloroethene	G 3CC ~~2500~~	E
78-87-5	1,2-Dichloropropane	27	U
75-27-4	Bromodichloromethane	27	U
108-10-1	4-Methyl-2-Pentanone	55	U
10061-01-5	cis-1,3-Dichloropropene	27	U
108-88-3	Toluene	27	U
10061-02-6	trans-1,3-Dichloropropene	27	U
79-00-5	1,1,2-Trichloroethane	27	U
591-78-6	2-Hexanone	55	U
127-18-4	Tetrachloroethene	460	
124-48-1	Dibromochloromethane	27	U
108-90-7	Chlorobenzene	27	U
100-41-4	Ethylbenzene	27	U
1330-20-7	Xylene (total)	8	J
100-42-5	Styrene	27	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1568

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299116

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0299116DV.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 9 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	27	U
79-34-5	1,1,2,2-Tetrachloroethane	27	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1568DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299116DL

Sample wt/vol: 4.0 (g/mL) G Lab File ID: L299116EV.D

Level: (low/med) MED Date Received: 04/25/96

% Moisture: not dec. 9 Date Analyzed: 05/17/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (u

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	680	U
75-01-4	Vinyl Chloride	680	U
74-83-9	Bromomethane	680	U
75-00-3	Chloroethane	680	U
67-64-1	Acetone	1300	U
75-35-4	1,1-Dichloroethene	680	U
156-60-5	trans-1,2-Dichloroethene	680	U
75-15-0	Carbon Disulfide	680	U
75-09-2	Methylene Chloride	680	U
75-34-3	1,1-Dichloroethane	680	U
540-59-0	1,2-Dichloroethene (total)	150	JD
156-59-2	cis-1,2-Dichloroethene	140	JD
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	680	U
71-55-6	1,1,1-Trichloroethane	1600	D
56-23-5	Carbon Tetrachloride	680	U
107-06-2	1,2-Dichloroethane	680	U
71-43-2	Benzene	680	U
79-01-6	Trichloroethene	9300	D
78-87-5	1,2-Dichloropropane	680	U
75-27-4	Bromodichloromethane	680	U
108-10-1	4-Methyl-2-Pentanone	1300	U
10061-01-5	cis-1,3-Dichloropropene	680	U
108-88-3	Toluene	680	U
10061-02-6	trans-1,3-Dichloropropene	680	U
79-00-5	1,1,2-Trichloroethane	680	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	2900	D
124-48-1	Dibromochloromethane	680	U
108-90-7	Chlorobenzene	680	U
100-41-4	Ethylbenzene	680	U
1330-20-7	Xylene (total)	680	U
100-42-5	Styrene	680	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1568DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299116D1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: L299116EV.D

Level: (low/med) MED Date Received: 04/25/96

% Moisture: not dec. 9 Date Analyzed: 05/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	680	U
79-34-5	1,1,2,2-Tetrachloroethane	680	U

SB15 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Use this analysis

B151214DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 29911?D1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: O299117DV.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 12 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
75-01-4	Vinyl Chloride	28	U
74-83-9	Bromomethane	28	U
75-00-3	Chloroethane	28	U
67-64-1	Acetone	57	U
75-35-4	1,1-Dichloroethene	28	U
156-60-5	trans-1,2-Dichloroethene	28	U
75-15-0	Carbon Disulfide	28	U
75-09-2	Methylene Chloride	28	U
75-34-3	1,1-Dichloroethane	28	U
540-59-0	1,2-Dichloroethene (total)	6	JD
156-59-2	cis-1,2-Dichloroethene	6	JD
78-93-3	2-Butanone	57	U
67-66-3	Chloroform	28	U
71-55-6	1,1,1-Trichloroethane	43	D
56-23-5	Carbon Tetrachloride	28	U
107-06-2	1,2-Dichloroethane	28	U
71-43-2	Benzene	28	U
79-01-6	Trichloroethene	800	D
78-87-5	1,2-Dichloropropane	28	U
75-27-4	Bromodichloromethane	28	U
108-10-1	4-Methyl-2-Pentanone	57	U
10061-01-5	cis-1,3-Dichloropropene	28	U
108-88-3	Toluene	25	JD
10061-02-6	trans-1,3-Dichloropropene	28	U
79-00-5	1,1,2-Trichloroethane	28	U
591-78-6	2-Hexanone	57	U
127-18-4	Tetrachloroethene	260	D
124-48-1	Dibromochloromethane	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethylbenzene	28	U
1330-20-7	Xylene (total)	28	U
100-42-5	Styrene	28	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B151214DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299117D1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0299117DV.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 12 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-25-2	Bromoform	28	U	J
79-34-5	1,1,2,2-Tetrachloroethane	28	U	J

SB15 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B151820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299118

Sample wt/vol: 2.0 (g/mL) G Lab File ID: N299118DV.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 7 Date Analyzed: 05/08/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
75-01-4	Vinyl Chloride	13	U
74-83-9	Bromomethane	13	U
75-00-3	Chloroethane	13	U
67-64-1	Acetone	27	U
75-35-4	1,1-Dichloroethene	13	U
156-60-5	trans-1,2-Dichloroethene	13	U
75-15-0	Carbon Disulfide	13	U
75-09-2	Methylene Chloride	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	14	
156-59-2	cis-1,2-Dichloroethene	14	
78-93-3	2-Butanone	27	U
67-66-3	Chloroform	13	U
71-55-6	1,1,1-Trichloroethane	140	
56-23-5	Carbon Tetrachloride	13	U
107-06-2	1,2-Dichloroethane	13	U
71-43-2	Benzene	13	U
79-01-6	Trichloroethene	3300 ~~1400~~	E D
78-87-5	1,2-Dichloropropane	13	U
75-27-4	Bromodichloromethane	13	U
108-10-1	4-Methyl-2-Pentanone	27	U
10061-01-5	cis-1,3-Dichloropropene	13	U
108-88-3	Toluene	13	U
10061-02-6	trans-1,3-Dichloropropene	13	U
79-00-5	1,1,2-Trichloroethane	13	U
591-78-6	2-Hexanone	27	U
127-18-4	Tetrachloroethene	5800 ~~650~~	E D
124-48-1	Dibromochloromethane	13	U
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
1330-20-7	Xylene (total)	13	U
100-42-5	Styrene	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B151820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299118

Sample wt/vol: 2.0 (g/mL) G Lab File ID: N299118DV.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 7 Date Analyzed: 05/08/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	13	U
79-34-5	1,1,2,2-Tetrachloroethane	13	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B151820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299118DL

Sample wt/vol: 4.0 (g/mL) G Lab File ID: L299118E2V.D

Level: (low/med) MED Date Received: 04/25/96

% Moisture: not dec. 7 Date Analyzed: 05/17/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	670	U
75-01-4	Vinyl Chloride	670	U
74-83-9	Bromomethane	670	U
75-00-3	Chloroethane	670	U
67-64-1	Acetone	1300	U
75-35-4	1,1-Dichloroethene	670	U
156-60-5	trans-1,2-Dichloroethene	670	U
75-15-0	Carbon Disulfide	670	U
75-09-2	Methylene Chloride	670	U
75-34-3	1,1-Dichloroethane	670	U
540-59-0	1,2-Dichloroethene (total)	670	U
156-59-2	cis-1,2-Dichloroethene	670	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	670	U
71-55-6	1,1,1-Trichloroethane	1000	D
56-23-5	Carbon Tetrachloride	670	U
107-06-2	1,2-Dichloroethane	670	U
71-43-2	Benzene	670	U
79-01-6	Trichloroethene	8300	D
78-87-5	1,2-Dichloropropane	670	U
75-27-4	Bromodichloromethane	670	U
108-10-1	4-Methyl-2-Pentanone	1300	U
10061-01-5	cis-1,3-Dichloropropene	670	U
108-88-3	Toluene	670	U
10061-02-6	trans-1,3-Dichloropropene	670	U
79-00-5	1,1,2-Trichloroethane	670	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	5800	D
124-48-1	Dibromochloromethane	670	U
108-90-7	Chlorobenzene	670	U
100-41-4	Ethylbenzene	670	U
1330-20-7	Xylene (total)	670	U
100-42-5	Styrene	670	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B151820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299118D1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: L299118E2V.D

Level: (low/med) MED Date Received: 04/25/96

% Moisture: not dec. 7 Date Analyzed: 05/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	670	U
79-34-5	1,1,2,2-Tetrachloroethane	670	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SB16 2-4
EPA SAMPLE NO.
SB16 2U

SB1624

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: SB164

Matrix: (soil/water) SOIL Lab Sample ID: 299642

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299642V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	6	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	2	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	4	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1624

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299642

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299642V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

SB16 2-4 DUP
EPA SAMPLE NO.
SB16 24 (DUP)

B1624D

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299677

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299677V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 18 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	3	J
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	2	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	4	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1624D

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299677

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299677V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 18 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB16 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB16 6-8

B1668

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299678

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299678V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 12 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	36	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	14	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	51	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1668

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299678

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299678V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 12 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB16 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB16 12 14

161214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299680

Sample wt/vol: 4.0 (g/mL) G Lab File ID: N299680DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 12 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	4	JB
75-35-4	1,1-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-15-0	Carbon Disulfide	7	U
75-09-2	Methylene Chloride	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
78-93-3	2-Butanone	14	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	13	
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	120	
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	20	B
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	170	
124-48-1	Dibromochloromethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylene (total)	7	U
100-42-5	Styrene	7	U

00012

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

161214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299680

Sample wt/vol: 4.0 (g/mL) G Lab File ID: N299680DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 12 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U

SB16 18-20'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB16 18 20

161820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299681D1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: N299681DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 8 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	8	JBD
75-35-4	1,1-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-15-0	Carbon Disulfide	2	JD
75-09-2	Methylene Chloride	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
78-93-3	2-Butanone	14	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	5	JD
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	74	D
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	20	BD
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	190	D
124-48-1	Dibromochloromethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylene (total)	7	U
100-42-5	Styrene	7	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

161820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299681D1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: N299681DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 8 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U

SB17 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1724A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298429

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298429V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 16 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	1	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	2	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1724A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298429

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298429V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 16 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB17 6-8'
EPA SAMPLE NO.

B1768A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298431

Sample wt/vol: 3.5 (g/mL) G Lab File ID: 029843D2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 15 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	8	U
75-01-4	Vinyl Chloride	8	U
74-83-9	Bromomethane	8	U
75-00-3	Chloroethane	8	U
67-64-1	Acetone	17	U
75-35-4	1,1-Dichloroethene	8	U
156-60-5	trans-1,2-Dichloroethene	8	U
75-15-0	Carbon Disulfide	8	U
75-09-2	Methylene Chloride	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
156-59-2	cis-1,2-Dichloroethene	8	U
78-93-3	2-Butanone	17	U
67-66-3	Chloroform	8	U
71-55-6	1,1,1-Trichloroethane	96	
56-23-5	Carbon Tetrachloride	8	U
107-06-2	1,2-Dichloroethane	8	U
71-43-2	Benzene	8	U
79-01-6	Trichloroethene	330	
78-87-5	1,2-Dichloropropane	8	U
75-27-4	Bromodichloromethane	8	U
108-10-1	4-Methyl-2-Pentanone	17	U
10061-01-5	cis-1,3-Dichloropropene	8	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	8	U
79-00-5	1,1,2-Trichloroethane	8	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	50	
124-48-1	Dibromochloromethane	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
1330-20-7	Xylene (total)	8	U
100-42-5	Styrene	8	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1768A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298431

Sample wt/vol: 3.5 (g/mL) G Lab File ID: 0298431D2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 15 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U

SB17 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B171214\

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298433

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298433D2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 14 Date Analyzed: 04/30/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	29	U
75-01-4	Vinyl Chloride	29	U
74-83-9	Bromomethane	29	U
75-00-3	Chloroethane	29	U
67-64-1	Acetone	58	U
75-35-4	1,1-Dichloroethene	29	U
156-60-5	trans-1,2-Dichloroethene	29	U
75-15-0	Carbon Disulfide	29	U
75-09-2	Methylene Chloride	29	U
75-34-3	1,1-Dichloroethane	29	U
540-59-0	1,2-Dichloroethene (total)	29	U
156-59-2	cis-1,2-Dichloroethene	29	U
78-93-3	2-Butanone	58	U
67-66-3	Chloroform	29	U
71-55-6	1,1,1-Trichloroethane	200	
56-23-5	Carbon Tetrachloride	29	U
107-06-2	1,2-Dichloroethane	29	U
71-43-2	Benzene	29	U
79-01-6	Trichloroethene	990	
78-87-5	1,2-Dichloropropane	29	U
75-27-4	Bromodichloromethane	29	U
108-10-1	4-Methyl-2-Pentanone	58	U
10061-01-5	cis-1,3-Dichloropropene	29	U
108-88-3	Toluene	29	U
10061-02-6	trans-1,3-Dichloropropene	29	U
79-00-5	1,1,2-Trichloroethane	29	U
591-78-6	2-Hexanone	58	U
127-18-4	Tetrachloroethene	550	
124-48-1	Dibromochloromethane	29	U
108-90-7	Chlorobenzene	29	U
100-41-4	Ethylbenzene	29	U
1330-20-7	Xylene (total)	29	U
100-42-5	Styrene	29	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B171214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298433

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298433D2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 14 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	29	U
79-34-5	1,1,2,2-Tetrachloroethane	29	U

SB17 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B171820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298434

Sample wt/vol: 1.0 (g/mL) G Lab File ID: C298434DV.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 9 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	27	U
75-01-4	Vinyl Chloride	27	U
74-83-9	Bromomethane	27	U
75-00-3	Chloroethane	27	U
67-64-1	Acetone	55	U
75-35-4	1,1-Dichloroethene	27	U
156-60-5	trans-1,2-Dichloroethene	27	U
75-15-0	Carbon Disulfide	27	U
75-09-2	Methylene Chloride	27	U
75-34-3	1,1-Dichloroethane	27	U
540-59-0	1,2-Dichloroethene (total)	27	U
156-59-2	cis-1,2-Dichloroethene	27	U
78-93-3	2-Butanone	55	U
67-66-3	Chloroform	27	U
71-55-6	1,1,1-Trichloroethane	53	
56-23-5	Carbon Tetrachloride	27	U
107-06-2	1,2-Dichloroethane	27	U
71-43-2	Benzene	27	U
79-01-6	Trichloroethene	120	
78-87-5	1,2-Dichloropropane	27	U
75-27-4	Bromodichloromethane	27	U
108-10-1	4-Methyl-2-Pentanone	55	U
10061-01-5	cis-1,3-Dichloropropene	27	U
108-88-3	Toluene	14	J
10061-02-6	trans-1,3-Dichloropropene	27	U
79-00-5	1,1,2-Trichloroethane	27	U
591-78-6	2-Hexanone	55	U
127-18-4	Tetrachloroethene	1200	E
124-48-1	Dibromochloromethane	27	U
108-90-7	Chlorobenzene	27	U
100-41-4	Ethylbenzene	27	U
1330-20-7	Xylene (total)	27	U
100-42-5	Styrene	27	U

5 6/4/96

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B171820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298434

Sample wt/vol: 1.0 (g/mL) G Lab File ID: O298434DV.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 9 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	27	U
79-34-5	1,1,2,2-Tetrachloroethane	27	U

SB 18 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1824A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: soil/water) SOIL Lab Sample ID: 298238

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298238V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 21 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1824A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298238

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298238V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 21 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB18 2-4' DUP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB18 2-4 DUP
B18247

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298240

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298240V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 21 Date Analyzed: 04/26/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE CRGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1824D

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298240

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298240V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 21 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 18 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1868A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298242

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298242V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 22 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1868A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298242

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298242V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 22 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 18 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B181214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298244

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298244V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 15 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	4	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	7	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B181214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298244

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298244V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 15 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 18 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B181020A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298250

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 0298250DV.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 10 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
67-64-1	Acetone	22	U
75-35-4	1,1-Dichloroethene	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	22	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	320	J
56-23-5	Carbon Tetrachloride	11	U
107-06-2	1,2-Dichloroethane	11	U
71-43-2	Benzene	11	U
79-01-6	Trichloroethene	92	J
78-87-5	1,2-Dichloropropane	11	U
75-27-4	Bromodichloromethane	11	U
108-10-1	4-Methyl-2-Pentanone	22	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-88-3	Toluene	8	J
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
591-78-6	2-Hexanone	22	U
127-18-4	Tetrachloroethene	8	J
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (total)	11	U
100-42-5	Styrene	11	U

SKC 6/18/96

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B181820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298250

Sample wt/vol: 2.5 (g/mL) G Lab File ID: O298250DV.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 10 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U

000063

SB 19 2-4'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1924A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298445

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298445V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1924A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298445

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298445V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 20 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB19 2-4' DUP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB19 24 Dup
B1024MD

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298446

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C298446I2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 19 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
B1024MD

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298446

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298446I2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 19 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB19 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1968A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298448

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298448I2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 23 Date Analyzed: 04/30/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1968A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298448

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298448I2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 23 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 19 6-8 DUP

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 19 6-8 DUP
B1968D

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298449

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C298449I2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 21 Date Analyzed: 04/30/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1968D

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298449

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298449I2V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 21 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 19 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1912143

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298481

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C298481V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 17 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B191214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298481

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298481V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 17 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB19 18-20

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B191320S

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298483

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298483V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 14 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	14	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	1	J
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B191820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298483

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298483V.D

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: not dec. 14 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

300079

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB20 2-4
EPA SAMPLE NO.
SB2C 24

B2024

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299599

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299599V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 19 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2024

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299599

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299599V.D

Level: (low/med) LCW Date Received: 04/26/96

% Moisture: not dec. 19 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-25-2	Bromoform	6	U	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

SB 20 6-8'
EPA SAMPLE NO.
SB 20 6-8

B2068

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299600

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299600V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	8	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2068

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299600

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299600V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB20 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB201214

B201214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58116

Matrix: (soil/water) SOIL Lab Sample ID: 299601

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299601V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 21 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	73	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	140	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	10	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B201214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299601

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299601V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 21 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB20 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB20 18 20

B201820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299602

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299602V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 9 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	2	JB
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	22	
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	4	J
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	8	
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B201820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299602

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299602V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 9 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

SB21 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB21 2-4
ATSB2124

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299639

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299639V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 19 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	6	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ATSB2124

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299639

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299639V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 19 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 21 6-8'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB 21 6-8

ATSB2168

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299640

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299640V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	5	J
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	3	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	11	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

ATSB2168

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299640

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299640V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 21 12-14'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TSB21214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299641

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299641V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 14 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	36	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	13	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	15	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	13	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TSB21214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299641

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299641V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 14 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 21 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 21 18 20
B211820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299669

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299669V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 9 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	2	~~B~~
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	8	
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	21	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	19	~~B~~
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	100	
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B211820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299669

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299669V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 9 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

SB22 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB22 24

B2224

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299672

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299672V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 14 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	4	~~B~~
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	1	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	3	~~B~~
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	10	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2224

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299672

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299672V.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 14 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 22 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 22 6S
B2268

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299673

Sample wt/vol: 2.5 (g/mL) G Lab File ID: N299673DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 13 Date Analyzed: 05/10/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	23	U
75-01-4	Vinyl Chloride	23	U
74-83-9	Bromomethane	23	U
75-00-3	Chloroethane	23	U
67-64-1	Acetone	23	U
75-35-4	1,1-Dichloroethene	23	U
156-60-5	trans-1,2-Dichloroethene	23	U
75-15-0	Carbon Disulfide	23	U
75-09-2	Methylene Chloride	23	U
75-34-3	1,1-Dichloroethane	23	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	46	U
67-66-3	Chloroform	23	U
71-55-6	1,1,1-Trichloroethane	190	
56-23-5	Carbon Tetrachloride	23	U
107-06-2	1,2-Dichloroethane	23	U
71-43-2	Benzene	23	U
79-01-6	Trichloroethene	910	
78-87-5	1,2-Dichloropropane	23	U
75-27-4	Bromodichloromethane	23	U
108-10-1	4-Methyl-2-Pentanone	46	U
10061-01-5	cis-1,3-Dichloropropene	23	U
108-88-3	Toluene	44	B
10061-02-6	trans-1,3-Dichloropropene	23	U
79-00-5	1,1,2-Trichloroethane	23	U
591-78-6	2-Hexanone	46	U
127-18-4	Tetrachloroethene	2000	E
124-48-1	Dibromochloromethane	23	U
108-90-7	Chlorobenzene	23	U
100-41-4	Ethylbenzene	23	U
1330-20-7	Xylene (total)	23	U
100-42-5	Styrene	23	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2268

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299673

Sample wt/vol: 2.5 (g/mL) G Lab File ID: N299673DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 13 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 2.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	23	U
79-34-5	1,1,2,2-Tetrachloroethane	23	U

SB 22 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 22 12 14
B221214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299674

Sample wt/vol: 3.0 (g/mL) G Lab File ID: N299674DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 7 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	9	U
75-01-4	Vinyl Chloride	9	U
74-83-9	Bromomethane	9	U
75-00-3	Chloroethane	9	U
67-64-1	Acetone	6	B
75-35-4	1,1-Dichloroethene	9	U
156-60-5	trans-1,2-Dichloroethene	9	U
75-15-0	Carbon Disulfide	9	U
75-09-2	Methylene Chloride	9	U
75-34-3	1,1-Dichloroethane	9	U
540-59-0	1,2-Dichloroethene (total)	5	J
156-59-2	cis-1,2-Dichloroethene	5	J
78-93-3	2-Butanone	18	U
67-66-3	Chloroform	9	U
71-55-6	1,1,1-Trichloroethane	44	
56-23-5	Carbon Tetrachloride	9	U
107-06-2	1,2-Dichloroethane	9	U
71-43-2	Benzene	9	U
79-01-6	Trichloroethene	360	
78-87-5	1,2-Dichloropropane	9	U
75-27-4	Bromodichloromethane	9	U
108-10-1	4-Methyl-2-Pentanone	18	U
10061-01-5	cis-1,3-Dichloropropene	9	U
108-88-3	Toluene	100	B
10061-02-6	trans-1,3-Dichloropropene	9	U
79-00-5	1,1,2-Trichloroethane	3	J
591-78-6	2-Hexanone	18	U
127-18-4	Tetrachloroethene	930	E
124-48-1	Dibromochloromethane	9	U
108-90-7	Chlorobenzene	9	U
100-41-4	Ethylbenzene	9	U
1330-20-7	Xylene (total)	9	U
100-42-5	Styrene	9	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B221214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299674

Sample wt/vol: 3.0 (g/mL) G Lab File ID: N299674DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 7 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	9	U
79-34-5	1,1,2,2-Tetrachloroethane	9	U

SB22 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B221820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299675

Sample wt/vol: 1.0 (g/mL) G Lab File ID: N299675DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 6 Date Analyzed: 05/10/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	26	U
75-01-4	Vinyl Chloride	26	U
74-83-9	Bromomethane	26	U
75-00-3	Chloroethane	26	U
67-64-1	Acetone	~~13~~ 53	~~B~~
75-35-4	1,1-Dichloroethene	26	U
156-60-5	trans-1,2-Dichloroethene	26	U
75-15-0	Carbon Disulfide	26	U
75-09-2	Methylene Chloride	26	U
75-34-3	1,1-Dichloroethane	11	J
540-59-0	1,2-Dichloroethene (total)	49	J
156-59-2	cis-1,2-Dichloroethene	47	J
78-93-3	2-Butanone	53	U
67-66-3	Chloroform	26	U
71-55-6	1,1,1-Trichloroethane	490	
56-23-5	Carbon Tetrachloride	26	U
107-06-2	1,2-Dichloroethane	26	U
71-43-2	Benzene	26	U
79-01-6	Trichloroethene	~~2100~~ 810	~~E~~ D
78-87-5	1,2-Dichloropropane	26	U
75-27-4	Bromodichloromethane	26	U
108-10-1	4-Methyl-2-Pentanone	53	U
10061-01-5	cis-1,3-Dichloropropene	26	U
108-88-3	Toluene	250	~~B~~
10061-02-6	trans-1,3-Dichloropropene	26	U
79-00-5	1,1,2-Trichloroethane	12	J
591-78-6	2-Hexanone	53	U
127-18-4	Tetrachloroethene	~~5200~~ 3000	~~E~~ D
124-48-1	Dibromochloromethane	26	U
108-90-7	Chlorobenzene	26	U
100-41-4	Ethylbenzene	26	U
1330-20-7	Xylene (total)	26	U
100-42-5	Styrene	26	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B221820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299675

Sample wt/vol: 1.0 (g/mL) G Lab File ID: N299675DV.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: not dec. 6 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	26	U
79-34-5	1,1,2,2-Tetrachloroethane	26	U

SB 22 18-20' DL

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B221820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299675D1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: L299675EV.D

Level: (low/med) MED Date Received: 04/27/96

% Moisture: not dec. 6 Date Analyzed: 05/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	660	U
75-01-4	Vinyl Chloride	660	U
74-83-9	Bromomethane	660	U
75-00-3	Chloroethane	660	U
67-64-1	Acetone	1300	U
75-35-4	1,1-Dichloroethene	660	U
156-60-5	trans-1,2-Dichloroethene	660	U
75-15-0	Carbon Disulfide	660	U
75-09-2	Methylene Chloride	660	U
75-34-3	1,1-Dichloroethane	660	U
540-59-0	1,2-Dichloroethene (total)	660	U
156-59-2	cis-1,2-Dichloroethene	660	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	660	U
71-55-6	1,1,1-Trichloroethane	660	U
56-23-5	Carbon Tetrachloride	660	U
107-06-2	1,2-Dichloroethane	660	U
71-43-2	Benzene	660	U
79-01-6	Trichloroethene	810	D
78-87-5	1,2-Dichloropropane	660	U
75-27-4	Bromodichloromethane	660	U
108-10-1	4-Methyl-2-Pentanone	1300	U
10061-01-5	cis-1,3-Dichloropropene	660	U
108-88-3	Toluene	160	JD
10061-02-6	trans-1,3-Dichloropropene	660	U
79-00-5	1,1,2-Trichloroethane	660	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	5600	D
124-48-1	Dibromochloromethane	660	U
108-90-7	Chlorobenzene	660	U
100-41-4	Ethylbenzene	660	U
1330-20-7	Xylene (total)	660	U
100-42-5	Styrene	660	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B221820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299675D1

Sample wt/vol: 4.0 (g/mL) G Lab File ID: L299675EV.D

Level: (low/med) MED Date Received: 04/27/96

% Moisture: not dec. 6 Date Analyzed: 05/17/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	660	U
79-34-5	1,1,2,2-Tetrachloroethane	660	U

SB23 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2324A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298068

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298068V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2324A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298068

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298068V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 23 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2368A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298070

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298070V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 13 Date Analyzed: 04/24/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2368A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298070

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298070V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 13 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

006052

5823 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B231214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298072

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298072I2V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 9 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	5	U
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	5	J
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B231214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298072

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298072I2V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 9 Date Analyzed: 04/26/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

SB 23 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B231820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298074

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298074V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 13 Date Analyzed: 04/24/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	17	
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	57	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B231820A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298074

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298074V.D

Level: (low/med) LOW Date Received: 04/16/96

% Moisture: not dec. 13 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 24 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 24 24 MD (Dup)

B2424MD

only VOC submitted for SB 24 24 for SRC 6/19/96

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298016

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C298016V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2424MD

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298016

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298016V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 16 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB24 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB24108
B2468A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298023

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C298023V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 18 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	4	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2468A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298023

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298023V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 18 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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51324 12-14

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NC.
SB241214
B241214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298018

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298018I2V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 13 Date Analyzed: 04/25/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B241214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298018

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298018I2V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 13 Date Analyzed: 04/25/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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SB 24 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB241820

B241820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298019

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O298019V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 7 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	5	U
75-01-4	Vinyl Chloride	5	U
74-83-9	Bromomethane	5	U
75-00-3	Chloroethane	5	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	5	U
156-60-5	trans-1,2-Dichloroethene	5	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
156-59-2	cis-1,2-Dichloroethene	5	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	5	U
71-55-6	1,1,1-Trichloroethane	9	
56-23-5	Carbon Tetrachloride	5	U
107-06-2	1,2-Dichloroethane	5	U
71-43-2	Benzene	5	U
79-01-6	Trichloroethene	6	
78-87-5	1,2-Dichloropropane	5	U
75-27-4	Bromodichloromethane	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	5	U
108-88-3	Toluene	2	J
10061-02-6	trans-1,3-Dichloropropene	5	U
79-00-5	1,1,2-Trichloroethane	5	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	3	J
124-48-1	Dibromochloromethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U
100-42-5	Styrene	5	U

000078

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B241820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 298019

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C298019V.D

Level: (low/med) LOW Date Received: 04/13/96

% Moisture: not dec. 7 Date Analyzed: 04/24/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

000079

SB 25 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 25 24

SB2524A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297892

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297892V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 11 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	11	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	11	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	1	J
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	20	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	11	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	3	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB2524A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297892

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0297892V.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 11 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB25 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB25 12 14
SB251214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297896

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0297896DV.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 11 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
75-01-4	Vinyl Chloride	28	U
74-83-9	Bromomethane	28	U
75-00-3	Chloroethane	28	U
67-64-1	Acetone	56	U
75-35-4	1,1-Dichloroethene	28	U
156-60-5	trans-1,2-Dichloroethene	28	U
75-15-0	Carbon Disulfide	28	U
75-09-2	Methylene Chloride	28	U
75-34-3	1,1-Dichloroethane	28	U
540-59-0	1,2-Dichloroethene (total)	8	J
156-59-2	cis-1,2-Dichloroethene	8	J
78-93-3	2-Butanone	56	U
67-66-3	Chloroform	28	U
71-55-6	1,1,1-Trichloroethane	83	
56-23-5	Carbon Tetrachloride	28	U
107-06-2	1,2-Dichloroethane	28	U
71-43-2	Benzene	28	U
79-01-6	Trichloroethene	1400	E J
78-87-5	1,2-Dichloropropane	28	U
75-27-4	Bromodichloromethane	28	U
108-10-1	4-Methyl-2-Pentanone	56	U
10061-01-5	cis-1,3-Dichloropropene	28	U
108-88-3	Toluene	28	U
10061-02-6	trans-1,3-Dichloropropene	28	U
79-00-5	1,1,2-Trichloroethane	28	U
591-78-6	2-Hexanone	56	U
127-18-4	Tetrachloroethene	50	
124-48-1	Dibromochloromethane	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethylbenzene	28	U
1330-20-7	Xylene (total)	28	U
100-42-5	Styrene	28	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB251214A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297896

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0297896DV.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: not dec. 11 Date Analyzed: 04/23/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	28	U
79-34-5	1,1,2,2-Tetrachloroethane	28	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B251820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298695

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298695DV.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 17 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	30	U
75-01-4	Vinyl Chloride	30	U
74-83-9	Bromomethane	30	U
75-00-3	Chloroethane	30	U
67-64-1	Acetone	60	U
75-35-4	1,1-Dichloroethene	30	U
156-60-5	trans-1,2-Dichloroethene	30	U
75-15-0	Carbon Disulfide	30	U
75-09-2	Methylene Chloride	30	U
75-34-3	1,1-Dichloroethane	30	U
540-59-0	1,2-Dichloroethene (total)	30	U
156-59-2	cis-1,2-Dichloroethene	30	U
78-93-3	2-Butanone	60	U
67-66-3	Chloroform	22	J
71-55-6	1,1,1-Trichloroethane	67	
56-23-5	Carbon Tetrachloride	30	U
107-06-2	1,2-Dichloroethane	30	U
71-43-2	Benzene	30	U
79-01-6	Trichloroethene	940	
78-87-5	1,2-Dichloropropane	30	U
75-27-4	Bromodichloromethane	30	U
108-10-1	4-Methyl-2-Pentanone	60	U
10061-01-5	cis-1,3-Dichloropropene	30	U
108-88-3	Toluene	36	
10061-02-6	trans-1,3-Dichloropropene	30	U
79-00-5	1,1,2-Trichloroethane	30	U
591-78-6	2-Hexanone	60	U
127-18-4	Tetrachloroethene	430	
124-48-1	Dibromochloromethane	30	U
108-90-7	Chlorobenzene	30	U
100-41-4	Ethylbenzene	30	U
1330-20-7	Xylene (total)	30	U
100-42-5	Styrene	30	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B251820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298695

Sample wt/vol: 1.0 (g/mL) G Lab File ID: O298695DV.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: not dec. 17 Date Analyzed: 05/01/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	30	U
79-34-5	1,1,2,2-Tetrachloroethane	30	U

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SB 26 2-4'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2624

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298232

Sample wt/vol: 1.0 (g/mL) G Lab File ID: C298232DV.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 14 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	29	U
75-01-4	Vinyl Chloride	29	U
74-83-9	Bromomethane	29	U
75-00-3	Chloroethane	29	U
67-64-1	Acetone	56	U
75-35-4	1,1-Dichloroethene	29	U
156-60-5	trans-1,2-Dichloroethene	29	U
75-15-0	Carbon Disulfide	29	U
75-09-2	Methylene Chloride	29	U
75-34-3	1,1-Dichloroethane	29	U
540-59-0	1,2-Dichloroethene (total)	8	U
156-59-2	cis-1,2-Dichloroethene	8	U
78-93-3	2-Butanone	58	U
67-66-3	Chloroform	29	U
71-55-6	1,1,1-Trichloroethane	93	U
56-23-5	Carbon Tetrachloride	29	U
107-06-2	1,2-Dichloroethane	29	U
71-43-2	Benzene	29	U
79-01-6	Trichloroethene	600	J
78-87-5	1,2-Dichloropropane	29	U
75-27-4	Bromodichloromethane	29	U
108-10-1	4-Methyl-2-Pentanone	58	U
10061-01-5	cis-1,3-Dichloropropene	29	U
108-88-3	Toluene	47	U
10061-02-6	trans-1,3-Dichloropropene	29	U
79-00-5	1,1,2-Trichloroethane	29	U
591-78-6	2-Hexanone	58	U
127-18-4	Tetrachloroethene	1200	J
124-48-1	Dibromochloromethane	29	U
108-90-7	Chlorobenzene	29	U
100-41-4	Ethylbenzene	29	U
1330-20-7	Xylene (total)	29	U
100-42-5	Styrene	29	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2624

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298232

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298232DV.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 14 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	29	U
79-34-5	1,1,2,2-Tetrachloroethane	29	U

SB 26 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B26568

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298233

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 0298233DV.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 11 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
75-01-4	Vinyl Chloride	11	U
74-83-9	Bromomethane	11	U
75-00-3	Chloroethane	11	U
67-64-1	Acetone	22	U
75-35-4	1,1-Dichloroethene	11	U
156-60-5	trans-1,2-Dichloroethene	11	U
75-15-0	Carbon Disulfide	11	U
75-09-2	Methylene Chloride	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
156-59-2	cis-1,2-Dichloroethene	11	U
78-93-3	2-Butanone	22	U
67-66-3	Chloroform	11	U
71-55-6	1,1,1-Trichloroethane	14	
56-23-5	Carbon Tetrachloride	11	U
107-06-2	1,2-Dichloroethane	11	U
71-43-2	Benzene	11	U
79-01-6	Trichloroethene	200	
78-87-5	1,2-Dichloropropane	11	U
75-27-4	Bromodichloromethane	11	U
108-10-1	4-Methyl-2-Pentanone	22	U
10061-01-5	cis-1,3-Dichloropropene	11	U
108-88-3	Toluene	210	
10061-02-6	trans-1,3-Dichloropropene	11	U
79-00-5	1,1,2-Trichloroethane	11	U
591-78-6	2-Hexanone	22	U
127-18-4	Tetrachloroethene	920	E
124-48-1	Dibromochloromethane	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
1330-20-7	Xylene (total)	11	U
100-42-5	Styrene	11	U

J SC 6/18/96

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B26568

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298233

Sample wt/vol: 2.5 (g/mL) G Lab File ID: 0298233DV.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 11 Date Analyzed: 04/27/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	11	U
79-34-5	1,1,2,2-Tetrachloroethane	11	U

SB 26 12-14'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

261214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298234

Sample wt/vol: 1.0 (g/mL) G Lab File ID: O298234D2V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 7 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	27	U	
75-01-4	Vinyl Chloride	27	U	
74-83-9	Bromomethane	27	U	
75-00-3	Chloroethane	27	U	
67-64-1	Acetone	54	U	
75-35-4	1,1-Dichloroethene	27	U	
156-60-5	trans-1,2-Dichloroethene	27	U	
75-15-0	Carbon Disulfide	27	U	
75-09-2	Methylene Chloride	27	U	
75-34-3	1,1-Dichloroethane	27	U	
540-59-0	1,2-Dichloroethene (total)	27	U	
156-59-2	cis-1,2-Dichloroethene	27	U	
78-93-3	2-Butanone	54	U	
67-66-3	Chloroform	27	U	
71-55-6	1,1,1-Trichloroethane	10	J	
56-23-5	Carbon Tetrachloride	27	U	
107-06-2	1,2-Dichloroethane	27	U	
71-43-2	Benzene	27	U	
79-01-6	Trichloroethene	130		
78-87-5	1,2-Dichloropropane	27	U	
75-27-4	Bromodichloromethane	27	U	
108-10-1	4-Methyl-2-Pentanone	54	U	
10061-01-5	cis-1,3-Dichloropropene	27	U	
108-88-3	Toluene	45		
10061-02-6	trans-1,3-Dichloropropene	27	U	
79-00-5	1,1,2-Trichloroethane	27	U	
591-78-6	2-Hexanone	54	U	
127-18-4	Tetrachloroethene	1000		J SRC 6/18/96
124-48-1	Dibromochloromethane	27	U	
108-90-7	Chlorobenzene	27	U	
100-41-4	Ethylbenzene	27	U	
1330-20-7	Xylene (total)	27	U	
100-42-5	Styrene	27	U	

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

261214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298234

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298234D2V.D

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: not dec. 7 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	27	U
79-34-5	1,1,2,2-Tetrachloroethane	27	U

SB 26 18-20'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

261820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298236

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298236E3V.D

Level: (low/med) MED Date Received: 04/18/96

% Moisture: not dec. 8 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	670	U
75-01-4	Vinyl Chloride	670	U
74-83-9	Bromomethane	670	U
75-00-3	Chloroethane	670	U
67-64-1	Acetone	1300	U
75-35-4	1,1-Dichloroethene	670	U
156-60-5	trans-1,2-Dichloroethene	670	U
75-15-0	Carbon Disulfide	670	U
75-09-2	Methylene Chloride	670	U
75-34-3	1,1-Dichloroethane	670	U
540-59-0	1,2-Dichloroethene (total)	670	U
156-59-2	cis-1,2-Dichloroethene	670	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	670	U
71-55-6	1,1,1-Trichloroethane	390	J
56-23-5	Carbon Tetrachloride	670	U
107-06-2	1,2-Dichloroethane	670	U
71-43-2	Benzene	670	U
79-01-6	Trichloroethene	3000	
78-87-5	1,2-Dichloropropane	670	U
75-27-4	Bromodichloromethane	670	U
108-10-1	4-Methyl-2-Pentanone	1300	U
10061-01-5	cis-1,3-Dichloropropene	670	U
108-88-3	Toluene	250	J
10061-02-6	trans-1,3-Dichloropropene	670	U
79-00-5	1,1,2-Trichloroethane	670	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	18000	
124-48-1	Dibromochloromethane	670	U
108-90-7	Chlorobenzene	670	U
100-41-4	Ethylbenzene	670	U
1330-20-7	Xylene (total)	670	U
100-42-5	Styrene	670	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

261820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298236

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298236E3V.D

Level: (low/med) MED Date Received: 04/18/96

% Moisture: not dec. 8 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	670	U
79-34-5	1,1,2,2-Tetrachloroethane	670	U

SB 27 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2724

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298172

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0298172I3V.D

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: not dec. 14 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	21	
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	2	U
156-59-2	cis-1,2-Dichloroethene	2	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	3	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	26	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	9	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	15	
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2724

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298172

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 029817213V.D

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: not dec. 14 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB27 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2768A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298170

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298170EV.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 13 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	710	U
75-01-4	Vinyl Chloride	710	U
74-83-9	Bromomethane	710	U
75-00-3	Chloroethane	710	U
67-64-1	Acetone	1400	U
75-35-4	1,1-Dichloroethene	710	U
156-60-5	trans-1,2-Dichloroethene	710	U
75-15-0	Carbon Disulfide	710	U
75-09-2	Methylene Chloride	710	U
75-34-3	1,1-Dichloroethane	710	U
540-59-0	1,2-Dichloroethene (total)	210	J
156-59-2	cis-1,2-Dichloroethene	200	J
78-93-3	2-Butanone	1400	U
67-66-3	Chloroform	710	U
71-55-6	1,1,1-Trichloroethane	1700	
56-23-5	Carbon Tetrachloride	710	U
107-06-2	1,2-Dichloroethane	710	U
71-43-2	Benzene	710	U
79-01-6	Trichloroethene	11000	
78-87-5	1,2-Dichloropropane	710	U
75-27-4	Bromodichloromethane	710	U
108-10-1	4-Methyl-2-Pentanone	1400	U
10061-01-5	cis-1,3-Dichloropropene	710	U
108-88-3	Toluene	340	J
10061-02-6	trans-1,3-Dichloropropene	710	U
79-00-5	1,1,2-Trichloroethane	710	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	7000	
124-48-1	Dibromochloromethane	710	U
108-90-7	Chlorobenzene	710	U
100-41-4	Ethylbenzene	710	U
1330-20-7	Xylene (total)	710	U
100-42-5	Styrene	710	U

J SEC

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1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2768A

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298170

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298170EV.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 13 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	710	U
79-34-5	1,1,2,2-Tetrachloroethane	710	U

SB27 12-14'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B271214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298173

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298173DV.D

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: not dec. 10 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	28	U
75-01-4	Vinyl Chloride	28	U
74-83-9	Bromomethane	28	U
75-00-3	Chloroethane	28	U
67-64-1	Acetone	56	U
75-35-4	1,1-Dichloroethene	28	U
156-60-5	trans-1,2-Dichloroethene	28	U
75-15-0	Carbon Disulfide	28	U
75-09-2	Methylene Chloride	28	U
75-34-3	1,1-Dichloroethane	28	U
540-59-0	1,2-Dichloroethene (total)	10	U
156-59-2	cis-1,2-Dichloroethene	9	U
78-93-3	2-Butanone	56	U
67-66-3	Chloroform	28	U
71-55-6	1,1,1-Trichloroethane	86	
56-23-5	Carbon Tetrachloride	28	U
107-06-2	1,2-Dichloroethane	28	U
71-43-2	Benzene	28	U
79-01-6	Trichloroethene	1100	
78-87-5	1,2-Dichloropropane	28	U
75-27-4	Bromodichloromethane	28	U
108-10-1	4-Methyl-2-Pentanone	56	U
10061-01-5	cis-1,3-Dichloropropene	28	U
108-88-3	Toluene	12	U
10061-02-6	trans-1,3-Dichloropropene	28	U
79-00-5	1,1,2-Trichloroethane	10	U
591-78-6	2-Hexanone	56	U
127-18-4	Tetrachloroethene	540	J SEC 6/18/96
124-48-1	Dibromochloromethane	28	U
108-90-7	Chlorobenzene	28	U
100-41-4	Ethylbenzene	28	U
1330-20-7	Xylene (total)	28	U
100-42-5	Styrene	28	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B271214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298173

Sample wt/vol: 1.0 (g/mL) G Lab File ID: 0298173DV.D

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: not dec. 10 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	28	U
79-34-5	1,1,2,2-Tetrachloroethane	28	U

SB27 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B271820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298171

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298171E3V.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 10 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	690	U
75-01-4	Vinyl Chloride	690	U
74-83-9	Bromomethane	690	U
75-00-3	Chloroethane	690	U
67-64-1	Acetone	1300	U
75-35-4	1,1-Dichloroethene	690	U
156-60-5	trans-1,2-Dichloroethene	690	U
75-15-0	Carbon Disulfide	690	U
75-09-2	Methylene Chloride	690	U
75-34-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	140	U
156-59-2	cis-1,2-Dichloroethene	140	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	690	U
71-55-6	1,1,1-Trichloroethane	690	U
56-23-5	Carbon Tetrachloride	690	U
107-06-2	1,2-Dichloroethane	690	U
71-43-2	Benzene	690	U
79-01-6	Trichloroethene	5300	
78-87-5	1,2-Dichloropropane	690	U
75-27-4	Bromodichloromethane	690	U
108-10-1	4-Methyl-2-Pentanone	1300	U
10061-01-5	cis-1,3-Dichloropropene	690	U
108-88-3	Toluene	690	U
10061-02-6	trans-1,3-Dichloropropene	690	U
79-00-5	1,1,2-Trichloroethane	690	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	5900	
124-48-1	Dibromochloromethane	690	U
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	690	U
1330-20-7	Xylene (total)	690	U
100-42-5	Styrene	690	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B271820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298171

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298171E3V.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 10 Date Analyzed: 04/30/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	690	U
79-34-5	1,1,2,2-Tetrachloroethane	690	U

SB 27 26-28

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B272628

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298175

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298175EV.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 10 Date Analyzed: 04/29/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	690	U
75-01-4	Vinyl Chloride	690	U
74-83-9	Bromomethane	690	U
75-00-3	Chloroethane	690	U
67-64-1	Acetone	1300	U
75-35-4	1,1-Dichloroethene	690	U
156-60-5	trans-1,2-Dichloroethene	690	U
75-15-0	Carbon Disulfide	690	U
75-09-2	Methylene Chloride	690	U
75-34-3	1,1-Dichloroethane	690	U
540-59-0	1,2-Dichloroethene (total)	690	U
156-59-2	cis-1,2-Dichloroethene	690	U
78-93-3	2-Butanone	1300	U
67-66-3	Chloroform	690	U
71-55-6	1,1,1-Trichloroethane	570	J
56-23-5	Carbon Tetrachloride	690	U
107-06-2	1,2-Dichloroethane	690	U
71-43-2	Benzene	690	U
79-01-6	Trichloroethene	1400	
78-87-5	1,2-Dichloropropane	690	U
75-27-4	Bromodichloromethane	690	U
108-10-1	4-Methyl-2-Pentanone	1300	U
10061-01-5	cis-1,3-Dichloropropene	690	U
108-88-3	Toluene	690	U
10061-02-6	trans-1,3-Dichloropropene	690	U
79-00-5	1,1,2-Trichloroethane	690	U
591-78-6	2-Hexanone	1300	U
127-18-4	Tetrachloroethene	9800	
124-48-1	Dibromochloromethane	690	U
108-90-7	Chlorobenzene	690	U
100-41-4	Ethylbenzene	690	U
1330-20-7	Xylene (total)	690	U
100-42-5	Styrene	690	U

1A-2
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B272628

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298175

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298175EV.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 10 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	690	U
79-34-5	1,1,2,2-Tetrachloroethane	690	U

SB27 28-30'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B272830

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298176

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298176EV.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 13 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	710	U
75-01-4	Vinyl Chloride	710	U
74-83-9	Bromomethane	710	U
75-00-3	Chloroethane	710	U
67-64-1	Acetone	1400	U
75-35-4	1,1-Dichloroethene	710	U
156-60-5	trans-1,2-Dichloroethene	710	U
75-15-0	Carbon Disulfide	710	U
75-09-2	Methylene Chloride	710	U
75-34-3	1,1-Dichloroethane	710	U
540-59-0	1,2-Dichloroethene (total)	710	U
156-59-2	cis-1,2-Dichloroethene	710	U
78-93-3	2-Butanone	1400	U
67-66-3	Chloroform	710	U
71-55-6	1,1,1-Trichloroethane	710	U
56-23-5	Carbon Tetrachloride	710	U
107-06-2	1,2-Dichloroethane	710	U
71-43-2	Benzene	710	U
79-01-6	Trichloroethene	710	U
78-87-5	1,2-Dichloropropane	710	U
75-27-4	Bromodichloromethane	710	U
108-10-1	4-Methyl-2-Pentanone	1400	U
10061-01-5	cis-1,3-Dichloropropene	710	U
108-88-3	Toluene	710	U
10061-02-6	trans-1,3-Dichloropropene	710	U
79-00-5	1,1,2-Trichloroethane	710	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	220	J
124-48-1	Dibromochloromethane	710	U
108-90-7	Chlorobenzene	710	U
100-41-4	Ethylbenzene	3600	
1330-20-7	Xylene (total)	44000	
100-42-5	Styrene	710	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B272830

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298176

Sample wt/vol: 4.0 (g/mL) G Lab File ID: M298176EV.D

Level: (low/med) MED Date Received: 04/17/96

% Moisture: not dec. 13 Date Analyzed: 04/29/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000(uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	710	U
79-34-5	1,1,2,2-Tetrachloroethane	710	U

SB23 2-4

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
B2824

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299560

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299560V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 22 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	B
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	B
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	B
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2824

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299560

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299560V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 22 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB25 6-8

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB25 69

B2868RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 29956LR1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N29956L2V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 22 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	19	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	3	J
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	2	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2868RE

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299561R1

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299561I2V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 22 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SB 28 12-14

EPA SAMPLE NO.

SB 28 12-14

B281214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: soil/water SOIL Lab Sample ID: 299588

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299588I2V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 21 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	48	B
75-35-4	1,1-Dichloroethene	7	J
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	260	B
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	14	
79-01-6	Trichloroethene	20	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	23	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	27	
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B281214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299588

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299588I27.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 21 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

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SB 28 18-20
EPA SAMPLE NO.
4B 28 15 20

B281820

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VOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299589

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299589I2V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 25 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____ (uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	28	
75-35-4	1,1-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-15-0	Carbon Disulfide	220	
75-09-2	Methylene Chloride	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
124-48-1	Dibromochloromethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylene (total)	7	U
100-42-5	Styrene	7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB 38 1820
B281820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299589

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C299589I2V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 25 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U

SB29 2-4'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2924

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299123

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299123V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	12	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	12	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	0.4	J
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2924

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299123

Sample wt/vol: 5.0 (g/mL) G Lab File ID: C299123V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 15 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB29 6-8'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2968

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299124V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 22 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	13	U
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	3	J
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	5	J
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2968

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299124

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O299124V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 22 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB 29 12-14'

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B291214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299125

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299125V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 25 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	Chloromethane	7	U	J
75-01-4	Vinyl Chloride	7	U	
74-83-9	Bromomethane	7	U	
75-00-3	Chloroethane	7	U	
67-64-1	Acetone	8	J	
75-35-4	1,1-Dichloroethene	7	U	J
156-60-5	trans-1,2-Dichloroethene	7	U	
75-15-0	Carbon Disulfide	7	U	
75-09-2	Methylene Chloride	7	U	
75-34-3	1,1-Dichloroethane	7	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	13	U	J
67-66-3	Chloroform	7	U	
71-55-6	1,1,1-Trichloroethane	7	U	
56-23-5	Carbon Tetrachloride	7	U	
107-06-2	1,2-Dichloroethane	7	U	
71-43-2	Benzene	7	U	
79-01-6	Trichloroethene	7	U	
78-87-5	1,2-Dichloropropane	7	U	
75-27-4	Bromodichloromethane	7	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
10061-01-5	cis-1,3-Dichloropropene	7	U	
108-88-3	Toluene	7	U	
10061-02-6	trans-1,3-Dichloropropene	7	U	
79-00-5	1,1,2-Trichloroethane	7	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	7	U	
124-48-1	Dibromochloromethane	7	U	
108-90-7	Chlorobenzene	7	U	
100-41-4	Ethylbenzene	7	U	
1330-20-7	Xylene (total)	7	U	
100-42-5	Styrene	7	U	✓

SKC
6/19/96

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B291214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299125

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O299125V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 25 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U

SB 29 18-20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B291820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299126

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O299126V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 27 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____ uL

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	7	U
75-01-4	Vinyl Chloride	7	U
74-83-9	Bromomethane	7	U
75-00-3	Chloroethane	7	U
67-64-1	Acetone	74	
75-35-4	1,1-Dichloroethene	7	U
156-60-5	trans-1,2-Dichloroethene	7	U
75-15-0	Carbon Disulfide	730	E
75-09-2	Methylene Chloride	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
156-59-2	cis-1,2-Dichloroethene	7	U
78-93-3	2-Butanone	14	
67-66-3	Chloroform	7	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
107-06-2	1,2-Dichloroethane	7	U
71-43-2	Benzene	7	U
79-01-6	Trichloroethene	7	U
78-87-5	1,2-Dichloropropane	7	U
75-27-4	Bromodichloromethane	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
10061-01-5	cis-1,3-Dichloropropene	7	U
108-88-3	Toluene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
79-00-5	1,1,2-Trichloroethane	7	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
124-48-1	Dibromochloromethane	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
1330-20-7	Xylene (total)	7	U
100-42-5	Styrene	7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B291820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299126

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299126V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 27 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U

SB 29 18-20

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B291820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299126D1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: N299126D2V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 27 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	34	U
75-01-4	Vinyl Chloride	34	U
74-83-9	Bromomethane	34	U
75-00-3	Chloroethane	34	U
67-64-1	Acetone	~~238~~	JBD
75-35-4	1,1-Dichloroethene	34	U
156-60-5	trans-1,2-Dichloroethene	34	U
75-15-0	Carbon Disulfide	700	D
75-09-2	Methylene Chloride	34	U
75-34-3	1,1-Dichloroethane	34	U
540-59-0	1,2-Dichloroethene (total)	34	U
156-59-2	cis-1,2-Dichloroethene	34	U
78-93-3	2-Butanone	68	U
67-66-3	Chloroform	34	U
71-55-6	1,1,1-Trichloroethane	34	U
56-23-5	Carbon Tetrachloride	34	U
107-06-2	1,2-Dichloroethane	34	U
71-43-2	Benzene	34	U
79-01-6	Trichloroethene	34	U
78-87-5	1,2-Dichloropropane	34	U
75-27-4	Bromodichloromethane	34	U
108-10-1	4-Methyl-2-Pentanone	68	U
10061-01-5	cis-1,3-Dichloropropene	34	U
108-88-3	Toluene	34	U
10061-02-6	trans-1,3-Dichloropropene	34	U
79-00-5	1,1,2-Trichloroethane	34	U
591-78-6	2-Hexanone	68	U
127-18-4	Tetrachloroethene	34	U
124-48-1	Dibromochloromethane	34	U
108-90-7	Chlorobenzene	34	U
100-41-4	Ethylbenzene	34	U
1330-20-7	Xylene (total)	34	U
100-42-5	Styrene	34	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B291820DL

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299126D1

Sample wt/vol: 1.0 (g/mL) G Lab File ID: N299126D2V.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: not dec. 27 Date Analyzed: 05/14/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	34	U
79-34-5	1,1,2,2-Tetrachloroethane	34	U

SB30 2-4'

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB30 24

B3024

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299595

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299595V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 8 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
74-87-3	Chloromethane	5	U	J
75-01-4	Vinyl Chloride	5	U	
74-83-9	Bromomethane	5	U	
75-00-3	Chloroethane	5	U	✓
67-64-1	Acetone	7	B	✓ J
75-35-4	1,1-Dichloroethene	5	U	J
156-60-5	trans-1,2-Dichloroethene	5	U	
75-15-0	Carbon Disulfide	5	U	✓
75-09-2	Methylene Chloride	2	J	
75-34-3	1,1-Dichloroethane	5	U	J
540-59-0	1,2-Dichloroethene (total)	5	U	
156-59-2	cis-1,2-Dichloroethene	5	U	
78-93-3	2-Butanone	11	U	
67-66-3	Chloroform	5	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
107-06-2	1,2-Dichloroethane	5	U	
71-43-2	Benzene	5	U	
79-01-6	Trichloroethene	5	U	
78-87-5	1,2-Dichloropropane	5	U	
75-27-4	Bromodichloromethane	5	U	
108-10-1	4-Methyl-2-Pentanone	11	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
108-88-3	Toluene	44		
10061-02-6	trans-1,3-Dichloropropene	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
591-78-6	2-Hexanone	11	U	
127-18-4	Tetrachloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
1330-20-7	Xylene (total)	5	U	
100-42-5	Styrene	5	U	

6/14/96

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B3024

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299595

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299595V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 8 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

5030 6-8

EPA SAMPLE NO.

SB30 68

B3068

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299596

Sample wt/vol: 5.0 (g/mL) G Lab File ID: 0299596I3V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 23 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG		Q
74-87-3	Chloromethane	6	U	
75-01-4	Vinyl Chloride	6	U	
74-83-9	Bromomethane	6	U	
75-00-3	Chloroethane	6	U	
67-64-1	Acetone	25		
75-35-4	1,1-Dichloroethene	6	U	
156-60-5	trans-1,2-Dichloroethene	6	U	
75-15-0	Carbon Disulfide	6	U	
75-09-2	Methylene Chloride	6	U	
75-34-3	1,1-Dichloroethane	6	U	
540-59-0	1,2-Dichloroethene (total)	6	U	
156-59-2	cis-1,2-Dichloroethene	6	U	
78-93-3	2-Butanone	13	U	
67-66-3	Chloroform	6	U	
71-55-6	1,1,1-Trichloroethane	6	U	
56-23-5	Carbon Tetrachloride	6	U	
107-06-2	1,2-Dichloroethane	6	U	
71-43-2	Benzene	6	U	
79-01-6	Trichloroethene	4	J	
78-87-5	1,2-Dichloropropane	6	U	
75-27-4	Bromodichloromethane	6	U	
108-10-1	4-Methyl-2-Pentanone	13	U	
10061-01-5	cis-1,3-Dichloropropene	6	U	
108-88-3	Toluene	4	J	
10061-02-6	trans-1,3-Dichloropropene	6	U	
79-00-5	1,1,2-Trichloroethane	6	U	
591-78-6	2-Hexanone	13	U	
127-18-4	Tetrachloroethene	6	U	
124-48-1	Dibromochloromethane	6	U	
108-90-7	Chlorobenzene	6	U	
100-41-4	Ethylbenzene	6	U	
1330-20-7	Xylene (total)	6	U	
100-42-5	Styrene	6	U	

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B3068

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299596

Sample wt/vol: 5.0 (g/mL) G Lab File ID: O299596I3V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 23 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
75-25-2	Bromoform	6	U	J
79-34-5	1,1,2,2-Tetrachloroethane	6	U	J

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VOLATILE ORGANICS ANALYSIS DATA SHEET

SB 30 12-14'
EPA SAMPLE NO.
SB 30 12 14

B301214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299597

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299597V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 24 Date Analyzed: 05/10/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	23	B
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	6	U
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	8	
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	9	
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B301214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299597

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299597V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 24 Date Analyzed: 05/10/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SB30 18-20'

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
SB30 1820

B301820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 59[illegible]

Matrix: (soil/water) SOIL Lab Sample ID: 299598

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299598V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 23 Date Analyzed: 05/09/96

GC Column: CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	6	U
75-01-4	Vinyl Chloride	6	U
74-83-9	Bromomethane	6	U
75-00-3	Chloroethane	6	U
67-64-1	Acetone	4	J
75-35-4	1,1-Dichloroethene	6	U
156-60-5	trans-1,2-Dichloroethene	6	U
75-15-0	Carbon Disulfide	2	J
75-09-2	Methylene Chloride	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
156-59-2	cis-1,2-Dichloroethene	6	U
78-93-3	2-Butanone	13	U
67-66-3	Chloroform	6	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
107-06-2	1,2-Dichloroethane	6	U
71-43-2	Benzene	6	U
79-01-6	Trichloroethene	6	U
78-87-5	1,2-Dichloropropane	6	U
75-27-4	Bromodichloromethane	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
10061-01-5	cis-1,3-Dichloropropene	6	U
108-88-3	Toluene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
79-00-5	1,1,2-Trichloroethane	6	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
124-48-1	Dibromochloromethane	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U
100-42-5	Styrene	6	U

SEC 6/14/96

000055

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B301820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299598

Sample wt/vol: 5.0 (g/mL) G Lab File ID: N299598V.D

Level: (low/med) LOW Date Received: 04/26/96

% Moisture: not dec. 23 Date Analyzed: 05/09/96

GC Column:CAP ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
75-25-2	Bromoform	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U

SRC
6/14/96

SB3 2-4'

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SB3[illegible]

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57383

Matrix: (soil water) SOIL Lab Sample ID: 29738[illegible]

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B29738[illegible]

Level: (low med) LOW Date Received: 04/12/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor 10

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
108-95-2	Phenol	410	U
111-44-4	bis(2-Chloroethyl)Ether	410	U
95-57-8	2-Chlorophenol	410	U
541-73-1	1,3-Dichlorobenzene	410	U
106-46-7	1,4-Dichlorobenzene	410	U
95-50-1	1,2-Dichlorobenzene	410	U
95-48-7	2-Methylphenol	410	U
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U
106-44-5	4-Methylphenol	410	U
621-64-7	N-Nitroso-Di-n-Propylamine	410	U
67-72-1	Hexachloroethane	410	U
98-95-3	Nitrobenzene	410	U
78-59-1	Isophorone	410	U
88-75-5	2-Nitrophenol	410	U
105-67-9	2,4-Dimethylphenol	410	U
111-91-1	bis(2-Chloroethoxy)Methane	410	U
120-83-2	2,4-Dichlorophenol	410	U
120-82-1	1,2,4-Trichlorobenzene	410	U
91-20-3	Naphthalene	410	U
106-47-8	4-Chloroaniline	410	U
87-68-3	Hexachlorobutadiene	410	U
59-50-7	4-Chloro-3-Methylphenol	410	U
91-57-6	2-Methylnaphthalene	410	U
77-47-4	Hexachlorocyclopentadiene	410	U
88-06-2	2,4,6-Trichlorophenol	410	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	410	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	410	U
208-96-8	Acenaphthylene	410	U
606-20-2	2,6-Dinitrotoluene	410	U
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	410	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB324

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297897

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B297897S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 19 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	410	U
121-14-2	2,4-Dinitrotoluene	410	U
84-66-2	Diethylphthalate	410	U
7005-72-3	4-Chlorophenyl-phenylether	410	U
86-73-7	Fluorene	410	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	410	U
101-55-3	4-Bromophenyl-phenylether	410	U
118-74-1	Hexachlorobenzene	410	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	410	U
120-12-7	Anthracene	410	U
86-74-8	Carbazole	410	U
84-74-2	Di-n-Butylphthalate	410	U
206-44-0	Fluoranthene	410	U
129-00-0	Pyrene	410	U
85-68-7	Butylbenzylphthalate	410	U
91-94-1	3,3'-Dichlorobenzidine	410	U
56-55-3	Benzo(a)Anthracene	410	U
218-01-9	Chrysene	410	U
117-81-7	bis(2-Ethylhexyl)Phthalate	410	U
117-84-0	Di-n-Octyl Phthalate	410	U
205-99-2	Benzo(b)Fluoranthene	410	U
207-08-9	Benzo(k)Fluoranthene	410	U
50-32-8	Benzo(a)Pyrene	410	U
193-39-5	Indeno(1,2,3-cd)Pyrene	410	U
53-70-3	Dibenz(a,h)Anthracene	410	U
191-24-2	Benzo(g,h,i)Perylene	410	U

(1) - Cannot be separated from Diphenylamine

SB 3 4-5'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.1 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/15/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U

90

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB368

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297899

Sample wt/vol: 30.1 (g/mL G Lab File ID: B297899S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

SB 3 6-8 DW

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B3F3D

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 957911

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B2F7911S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B368D

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297911

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B297911S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-Butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	380	U
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57

Matrix: (soil water) SOIL Lab Sample ID:

Sample wt vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31214

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297912

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B297912S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	390	U
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	390	U
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	390	U

(1) - Cannot be separated from Diphenylamine

SB3 18-20'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31820

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAT Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: B[illegible]914

Sample wt/vol: 30.2 (g/mL) G Lab File ID: B2979145

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-Propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)Methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B31820

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57907

Matrix: (soil/water) SOIL Lab Sample ID: 297914

Sample wt/vol: 30.2 (g/mL) G Lab File ID: B297914S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-Butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
56-55-3	Benzo(a)Anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)Phthalate	690	
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	360	U
207-08-9	Benzo(k)Fluoranthene	360	U
50-32-8	Benzo(a)Pyrene	360	U
193-39-5	Indeno(1,2,3-cd)Pyrene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
191-24-2	Benzo(g,h,i)Perylene	360	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SDG SAMPLE NO.

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 24 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500 (UL) Date Analyzed: 04/24/96

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	430	U
111-44-4	bis(-2-Chloroethyl)Ether	430	U
95-57-8	2-Chlorophenol	430	U
541-73-1	1,3-Dichlorobenzene	430	U
106-46-7	1,4-Dichlorobenzene	430	U
95-50-1	1,2-Dichlorobenzene	430	U
95-48-7	2-Methylphenol	430	U
108-60-1	2,2'-oxybis(1-Chloropropane)	430	U
106-44-5	4-Methylphenol	430	U
621-64-7	N-Nitroso-di-n-propylamine	430	U
67-72-1	Hexachloroethane	430	U
98-95-3	Nitrobenzene	430	U
78-59-1	Isophorone	430	U
88-75-5	2-Nitrophenol	430	U
105-67-9	2,4-Dimethylphenol	430	U
111-91-1	bis(2-Chloroethoxy)methane	430	U
120-83-2	2,4-Dichlorophenol	430	U
120-82-1	1,2,4-Trichlorobenzene	430	U
91-20-3	Naphthalene	39	J
106-47-8	4-Chloroaniline	430	U
87-68-3	Hexachlorobutadiene	430	U
59-50-7	4-Chloro-3-Methylphenol	430	U
91-57-6	2-Methylnaphthalene	41	J
77-47-4	Hexachlorocyclopentadiene	430	U
88-06-2	2,4,6-Trichlorophenol	430	U
95-95-4	2,4,5-Trichlorophenol	1000	U
91-58-7	2-Chloronaphthalene	430	U
88-74-4	2-Nitroaniline	1000	U
131-11-3	Dimethylphthalate	430	U
208-96-8	Acenaphthylene	66	J
606-20-2	2,6-Dinitrotoluene	430	U
99-09-2	3-Nitroaniline	1000	U
83-32-9	Acenaphthene	430	U

SBS 2-4'

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

3524

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297932

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U297932S.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 24 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed: 04/24/96

Injection Volume: 2.0 uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1000	U
100-02-7	4-Nitrophenol	1000	U
132-64-9	Dibenzofuran	24	J
121-14-2	2,4-Dinitrotoluene	430	U
84-66-2	Diethylphthalate	430	U
7005-72-3	4-Chlorophenyl-phenylether	430	U
86-73-7	Fluorene	42	J
100-01-6	4-Nitroaniline	1000	U
534-52-1	4,6-Dinitro-2-methylphenol	1000	U
86-30-6	N-nitrosodiphenylamine (1)	430	U
101-55-3	4-Bromophenyl-phenylether	430	U
118-74-1	Hexachlorobenzene	430	U
87-86-5	Pentachlorophenol	1000	U
85-01-8	Phenanthrene	340	J
120-12-7	Anthracene	55	J
86-74-8	Carbazole	33	J
84-74-2	Di-n-butylphthalate	430	U
206-44-0	Fluoranthene	760	
129-00-0	Pyrene	530	
85-68-7	Butylbenzylphthalate	430	U
91-94-1	3,3'-Dichlorobenzidine	430	U
56-55-3	Benzo(a)anthracene	310	J
218-01-9	Chrysene	370	J
117-81-7	bis(2-Ethylhexyl)phthalate	52	J
117-84-0	Di-n-octylphthalate	430	U
205-99-2	Benzo(b)fluoranthene	290	J
207-08-9	Benzo(k)fluoranthene	310	J
50-32-8	Benzo(a)pyrene	330	J
193-39-5	Indeno(1,2,3-cd)pyrene	210	J
53-70-3	Dibenz(a,h)anthracene	110	J
191-24-2	Benzo(g,h,i)perylene	270	J

(1) - Cannot be separated from Diphenylamine

000142

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B569

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U2979365.D

Level: (low/med) LOW Date Received:

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(-2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	950	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	950	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	950	U
83-32-9	Acenaphthene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B568

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297935

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U297935S.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed: 04/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	950	U
100-02-7	4-Nitrophenol	950	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	950	U
534-52-1	4,6-Dinitro-2-methylphenol	950	U
86-30-6	N-nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	950	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.2 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(-2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-di-n-propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	950	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	950	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	950	U
83-32-9	Acenaphthene	390	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B568D

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297937

Sample wt/vol: 30.2 g/mL) G Lab File ID: U297937S.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 16 decanted: (Y/N) N Date Extracted:04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed: 04/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	950	U
100-02-7	4-Nitrophenol	950	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	950	U
534-52-1	4,6-Dinitro-2-methylphenol	950	U
86-30-6	N-nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	950	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)phthalate	390	U
117-84-0	Di-n-octylphthalate	390	U
205-99-2	Benzo(b)fluoranthene	390	U
207-08-9	Benzo(k)fluoranthene	390	U
50-32-8	Benzo(a)pyrene	390	U
193-39-5	Indeno(1,2,3-cd)pyrene	390	U
53-70-3	Dibenz(a,h)anthracene	390	U
191-24-2	Benzo(g,h,i)perylene	390	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.5 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 10 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500 (UL) Date Analyzed:

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(-2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol		
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	870	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	870	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
99-09-2	3-Nitroaniline	870	U
83-32-9	Acenaphthene	360	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B51214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297938

Sample wt/vol: 30.5 (g/mL) G Lab File ID: U297938S.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed: 04/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	870	U
100-02-7	4-Nitrophenol	870	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	870	U
534-52-1	4,6-Dinitro-2-methylphenol	870	U
86-30-6	N-nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	870	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
56-55-3	Benzo(a)anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)phthalate	360	U
117-84-0	Di-n-octylphthalate	360	U
205-99-2	Benzo(b)fluoranthene	360	U
207-08-9	Benzo(k)fluoranthene	360	U
50-32-8	Benzo(a)pyrene	360	U
193-39-5	Indeno(1,2,3-cd)pyrene	360	U
53-70-3	Dibenz(a,h)anthracene	360	U
191-24-2	Benzo(g,h,i)perylene	360	U

(1) - Cannot be separated from Diphenylamine

SCS 15-20

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
[illegible]

B51820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: soil/water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U297940S.D

Level: (low/med) LOW Date Received: [illegible] 11/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed: [illegible] 04/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(-2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	[illegible]	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	900	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	[illegible]	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	900	U
83-32-9	Acenaphthene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B51820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 57911

Matrix: (soil/water) SOIL Lab Sample ID: 297940

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U297940S.D

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/17/96

Concentrated Extract Volume: 500(UL) Date Analyzed: 04/24/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	900	U
100-02-7	4-Nitrophenol	900	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	900	U
534-52-1	4,6-Dinitro-2-methylphenol	900	U
86-30-6	N-nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	900	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	370	U
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenz(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

(1) - Cannot be separated from Diphenylamine

SB11 2-11

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2[illegible]

Level: (low/med) LOW Date Received: 04/[illegible]

% Moisture: 18 decanted: (Y/N) N Date Extracted: 04/[illegible]

Concentrated Extract Volume: 2000 (uL) Date Analyzed: [illegible]

Injection Volume: 2.0(uL) Dilution Factor

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/[illegible]	
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	
95-48-7	2-Methylphenol	400	
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	1900	
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1124

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298437

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2984373S

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 05/02/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

SC 11 2-4 DUP

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt vol: 30.1 (g/mL) G Lab File ID: AP[illegible]

Level: (low/med) LOW Date Received: 04 [illegible]

% Moisture: 21 decanted: (Y/N) N Date Extracted [illegible]/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed [illegible]/96

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
108-95-2	Phenol	420	U
111-44-4	bis(2-Chloroethyl)Ether	420	U
95-57-8	2-Chlorophenol	420	U
541-73-1	1,3-Dichlorobenzene	420	U
106-46-7	1,4-Dichlorobenzene	420	U
95-50-1	1,2-Dichlorobenzene	420	
95-48-7	2-Methylphenol	420	U
108-60-1	2,2'-oxybis(1-Chloropropane)	420	U
106-44-5	4-Methylphenol	420	U
621-64-7	N-Nitroso-Di-n-Propylamine	420	U
67-72-1	Hexachloroethane	420	U
98-95-3	Nitrobenzene	420	U
78-59-1	Isophorone		
88-75-5	2-Nitrophenol	420	U
105-67-9	2,4-Dimethylphenol	420	U
111-91-1	bis(2-Chloroethoxy)Methane	420	U
120-83-2	2,4-Dichlorophenol	420	U
120-82-1	1,2,4-Trichlorobenzene	420	U
91-20-3	Naphthalene	420	U
106-47-8	4-Chloroaniline	420	U
87-68-3	Hexachlorobutadiene	420	U
59-50-7	4-Chloro-3-Methylphenol	420	U
91-57-6	2-Methylnaphthalene	420	U
77-47-4	Hexachlorocyclopentadiene	420	U
88-06-2	2,4,6-Trichlorophenol	420	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	420	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	420	U
208-96-8	Acenaphthylene	420	U
606-20-2	2,6-Dinitrotoluene	420	U
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	420	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1124D

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298439

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2984393S

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: 21 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 05/02/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	420	U
121-14-2	2,4-Dinitrotoluene	420	U
84-66-2	Diethylphthalate	420	U
7005-72-3	4-Chlorophenyl-phenylether	420	U
86-73-7	Fluorene	420	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	420	U
101-55-3	4-Bromophenyl-phenylether	420	U
118-74-1	Hexachlorobenzene	420	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	420	U
120-12-7	Anthracene	420	U
86-74-8	Carbazole	420	U
84-74-2	Di-n-Butylphthalate	420	U
206-44-0	Fluoranthene	420	U
129-00-0	Pyrene	420	U
85-68-7	Butylbenzylphthalate	420	U
91-94-1	3,3'-Dichlorobenzidine	420	U
56-55-3	Benzo(a)Anthracene	420	U
218-01-9	Chrysene	420	U
117-81-7	bis(2-Ethylhexyl)Phthalate	420	U
117-84-0	Di-n-Octyl Phthalate	420	U
205-99-2	Benzo(b)Fluoranthene	420	U
207-08-9	Benzo(k)Fluoranthene	420	U
50-32-8	Benzo(a)Pyrene	420	U
193-39-5	Indeno(1,2,3-cd)Pyrene	420	U
53-70-3	Dibenz(a,h)Anthracene	420	U
191-24-2	Benzo(g,h,i)Perylene	420	U

(1) - Cannot be separated from Diphenylamine

SB11 6-8

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code AQUAI Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: 18 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 2000 (uL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	2000	U
83-32-9	Acenaphthene	400	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1168

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298441

Sample wt/vol: 30.0 (g/mL) G Lab File ID: AP3984413S

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: 18 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 05/02/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2000	U
100-02-7	4-Nitrophenol	2000	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	2000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	2000	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	400	U
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

SB 12-14'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.1 (g/mL) G Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 04/19 [illegible]

% Moisture: 26 decanted: (Y/N) N Date Extracted: 04/24 [illegible]

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 05/02/[illegible]

Injection Volume: 2.0 (uL) Dilution [illegible]

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG	
108-95-2	Phenol	440	U
111-44-4	bis(2-Chloroethyl)Ether	440	U
95-57-8	2-Chlorophenol	440	U
541-73-1	1,3-Dichlorobenzene	440	U
106-46-7	1,4-Dichlorobenzene	440	U
95-50-1	1,2-Dichlorobenzene	440	U
95-48-7	2-Methylphenol	440	U
108-60-1	2,2'-oxybis(1-Chloropropane)	440	U
106-44-5	4-Methylphenol	440	U
621-64-7	N-Nitroso-Di-n-Propylamine	440	U
67-72-1	Hexachloroethane	440	U
98-95-3	Nitrobenzene	440	U
78-59-1	Isophorone	[illegible]	
88-75-5	2-Nitrophenol	440	U
105-67-9	2,4-Dimethylphenol	440	U
111-91-1	bis(2-Chloroethoxy)Methane	440	U
120-83-2	2,4-Dichlorophenol	440	U
120-82-1	1,2,4-Trichlorobenzene	440	U
91-20-3	Naphthalene	440	U
106-47-8	4-Chloroaniline	44[illegible]	U
87-68-3	Hexachlorobutadiene	440	U
59-50-7	4-Chloro-3-Methylphenol	440	U
91-57-6	2-Methylnaphthalene	440	U
77-47-4	Hexachlorocyclopentadiene	440	U
88-06-2	2,4,6-Trichlorophenol	440	U
95-95-4	2,4,5-Trichlorophenol	2200	U
91-58-7	2-Chloronaphthalene	440	U
88-74-4	2-Nitroaniline	2200	U
131-11-3	Dimethylphthalate	440	U
208-96-8	Acenaphthylene	440	U
606-20-2	2,6-Dinitrotoluene	440	U
99-09-2	3-Nitroaniline	2200	U
83-32-9	Acenaphthene	440	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B11214

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57953

Matrix: (soil/water) SOIL Lab Sample ID: 298440

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2984403S

Level: (low/med) LOW Date Received: 04/19/96

% Moisture: 26 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 05/02/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	2200	U
100-02-7	4-Nitrophenol	2200	U
132-64-9	Dibenzofuran	440	U
121-14-2	2,4-Dinitrotoluene	440	U
84-66-2	Diethylphthalate	440	U
7005-72-3	4-Chlorophenyl-phenylether	440	U
86-73-7	Fluorene	440	U
100-01-6	4-Nitroaniline	2200	U
534-52-1	4,6-Dinitro-2-methylphenol	2200	U
86-30-6	N-Nitrosodiphenylamine (1)	440	U
101-55-3	4-Bromophenyl-phenylether	440	U
118-74-1	Hexachlorobenzene	440	U
87-86-5	Pentachlorophenol	2200	U
85-01-8	Phenanthrene	440	U
120-12-7	Anthracene	440	U
86-74-8	Carbazole	440	U
84-74-2	Di-n-Butylphthalate	440	U
206-44-0	Fluoranthene	440	U
129-00-0	Pyrene	440	U
85-68-7	Butylbenzylphthalate	440	U
91-94-1	3,3'-Dichlorobenzidine	440	U
56-55-3	Benzo(a)Anthracene	440	U
218-01-9	Chrysene	440	U
117-81-7	bis(2-Ethylhexyl)Phthalate	440	U
117-84-0	Di-n-Octyl Phthalate	440	U
205-99-2	Benzo(b)Fluoranthene	440	U
207-08-9	Benzo(k)Fluoranthene	440	U
50-32-8	Benzo(a)Pyrene	440	U
193-39-5	Indeno(1,2,3-cd)Pyrene	440	U
53-70-3	Dibenz(a,h)Anthracene	440	U
191-24-2	Benzo(g,h,i)Perylene	440	U

(1) - Cannot be separated from Diphenylamine

SB 14 7-4'

EPA SAMPLE NO

B1424

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.0 (g/mL) G Lab File ID: [illegible]

Level: (low/med) LOW Date Received: [illegible]

% Moisture: 14 decanted: (Y/N) N Date Extracted: 04/24/9[illegible]

Concentrated Extract Volume: 1000 UL) Date Analyzed: [illegible]

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	
108-95-2	Phenol	770	U
111-44-4	bis(-2-Chloroethyl)Ether	770	U
95-57-8	2-Chlorophenol	770	U
541-73-1	1,3-Dichlorobenzene	770	U
106-46-7	1,4-Dichlorobenzene	770	U
95-50-1	1,2-Dichlorobenzene	770	U
95-48-7	2-Methylphenol	770	U
108-60-1	2,2'-oxybis(1-Chloropropane)	770	U
106-44-5	4-Methylphenol	770	U
621-64-7	N-Nitroso-di-n-propylamine	770	U
67-72-1	Hexachloroethane	770	U
98-95-3	Nitrobenzene	770	U
78-59-1	Isophorone	770	U
88-75-5	2-Nitrophenol	770	U
105-67-9	2,4-Dimethylphenol	770	U
111-91-1	bis(2-Chloroethoxy)methane	770	U
120-83-2	2,4-Dichlorophenol	770	U
120-82-1	1,2,4-Trichlorobenzene	770	U
91-20-3	Naphthalene	770	U
106-47-8	4-Chloroaniline	770	U
87-68-3	Hexachlorobutadiene	770	U
59-50-7	4-Chloro-3-Methylphenol	770	U
91-57-6	2-Methylnaphthalene	770	U
77-47-4	Hexachlorocyclopentadiene	770	U
88-06-2	2,4,6-Trichlorophenol	770	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	770	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	770	U
208-96-8	Acenaphthylene	770	U
606-20-2	2,6-Dinitrotoluene	770	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	770	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1424

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 299109

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U299109S.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/08/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	770	U
121-14-2	2,4-Dinitrotoluene	770	U
84-66-2	Diethylphthalate	770	U
7005-72-3	4-Chlorophenyl-phenylether	770	U
86-73-7	Fluorene	770	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	770	U
101-55-3	4-Bromophenyl-phenylether	770	U
118-74-1	Hexachlorobenzene	770	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	770	U
120-12-7	Anthracene	770	U
86-74-8	Carbazole	770	U
84-74-2	Di-n-butylphthalate	770	U
206-44-0	Fluoranthene	770	U
129-00-0	Pyrene	770	U
85-68-7	Butylbenzylphthalate	770	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	770	U
218-01-9	Chrysene	770	U
117-81-7	bis(2-Ethylhexyl)phthalate	770	U
117-84-0	Di-n-octylphthalate	770	U
205-99-2	Benzo(b)fluoranthene	770	U
207-08-9	Benzo(k)fluoranthene	770	U
50-32-8	Benzo(a)pyrene	770	U
193-39-5	Indeno(1,2,3-cd)pyrene	770	U
53-70-3	Dibenz(a,h)anthracene	770	U
191-24-2	Benzo(g,h,i)perylene	770	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SB4 6-8

EPA SAMPLE NO.

B1468

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: B601

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U299110S.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 1000(UL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(-2-Chloroethyl)Ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
108-60-1	2,2'-oxybis(1-Chloropropane)	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-di-n-propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
111-91-1	bis(2-Chloroethoxy)methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-Methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	780	U
208-96-8	Acenaphthylene	780	U
606-20-2	2,6-Dinitrotoluene	780	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	780	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1468

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 299110

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U299110S.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: 16 decanted: (Y/N) N Date Extracted: 04/24/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/08/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
86-74-8	Carbazole	780	U
84-74-2	Di-n-butylphthalate	51	J
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	780	U
218-01-9	Chrysene	780	U
117-81-7	bis(2-Ethylhexyl)phthalate	780	U
117-84-0	Di-n-octylphthalate	780	U
205-99-2	Benzo(b)fluoranthene	780	U
207-08-9	Benzo(k)fluoranthene	780	U
50-32-8	Benzo(a)pyrene	780	U
193-39-5	Indeno(1,2,3-cd)pyrene	780	U
53-70-3	Dibenz(a,h)anthracene	780	U
191-24-2	Benzo(g,h,i)perylene	780	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

5314 12-

EPA SAMPLE N...

B141214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: ...

Matrix: (soil/water) SOIL Lab Sample ID: 0991...

Sample wt/vol: 30.1 (g/mL) G Lab File ID: U2991135.D

Level: (low/med) LOW Date Received: 04/2...

% Moisture: 8 decanted: (Y/N) N Date Extracted: 04/30/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/06/...

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	720	U
111-44-4	bis(-2-Chloroethyl)Ether	720	U
95-57-8	2-Chlorophenol	720	U
541-73-1	1,3-Dichlorobenzene	720	U
106-46-7	1,4-Dichlorobenzene	720	U
95-50-1	1,2-Dichlorobenzene	720	U
95-48-7	2-Methylphenol	720	U
108-60-1	2,2'-oxybis(1-Chloropropane)	720	U
106-44-5	4-Methylphenol	720	U
621-64-7	N-Nitroso-di-n-propylamine	720	U
67-72-1	Hexachloroethane	720	U
98-95-3	Nitrobenzene	720	U
78-59-1	Isophorone	720	U
88-75-5	2-Nitrophenol	720	U
105-67-9	2,4-Dimethylphenol	720	U
111-91-1	bis(2-Chloroethoxy)methane	720	U
120-83-2	2,4-Dichlorophenol	720	U
120-82-1	1,2,4-Trichlorobenzene	720	U
91-20-3	Naphthalene	720	U
106-47-8	4-Chloroaniline	720	U
87-68-3	Hexachlorobutadiene	720	U
59-50-7	4-Chloro-3-Methylphenol	720	U
91-57-6	2-Methylnaphthalene	720	U
77-47-4	Hexachlorocyclopentadiene	720	U
88-06-2	2,4,6-Trichlorophenol	720	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	720	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	720	U
208-96-8	Acenaphthylene	720	U
606-20-2	2,6-Dinitrotoluene	720	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	720	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B141214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58100

Matrix: (soil/water) SOIL Lab Sample ID: 299111

Sample wt/vol: 30.1 (g/mL) G Lab File ID: U299113S.D

Level: (low/med) LOW Date Received: 04/25/96

% Moisture: 8 decanted: (Y/N) N Date Extracted: 04/30/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/06/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	720	U
121-14-2	2,4-Dinitrotoluene	720	U
84-66-2	Diethylphthalate	720	U
7005-72-3	4-Chlorophenyl-phenylether	720	U
86-73-7	Fluorene	720	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-nitrosodiphenylamine (1)	720	U
101-55-3	4-Bromophenyl-phenylether	720	U
118-74-1	Hexachlorobenzene	720	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	720	U
120-12-7	Anthracene	720	U
86-74-8	Carbazole	720	U
84-74-2	Di-n-butylphthalate	720	U
206-44-0	Fluoranthene	720	U
129-00-0	Pyrene	720	U
85-68-7	Butylbenzylphthalate	720	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)anthracene	720	U
218-01-9	Chrysene	720	U
117-81-7	bis(2-Ethylhexyl)phthalate	720	U
117-84-0	Di-n-octylphthalate	720	U
205-99-2	Benzo(b)fluoranthene	720	U
207-08-9	Benzo(k)fluoranthene	720	U
50-32-8	Benzo(a)pyrene	720	U
193-39-5	Indeno(1,2,3-cd)pyrene	720	U
53-70-3	Dibenz(a,h)anthracene	720	U
191-24-2	Benzo(g,h,i)perylene	720	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1624

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: soil/water) SOIL Lab Sample

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000(UL Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) Y pH: 6.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(-2-Chloroethyl)Ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
108-60-1	2,2'-oxybis(1-Chloropropane)	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-di-n-propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
111-91-1	bis(2-Chloroethoxy)methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-Methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	780	U
208-96-8	Acenaphthylene	780	U
606-20-2	2,6-Dinitrotoluene	780	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	780	U

FORM I SV-1

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB1624

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58166

Matrix: (soil/water) SOIL Lab Sample ID: 299642

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U299642S.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: 15 decanted: Y (N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000 (UL) Date Analyzed: 05/09/96

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 6.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
86-74-8	Carbazole	780	U
84-74-2	Di-n-butylphthalate	780 37	JB
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	780	U
218-01-9	Chrysene	780	U
117-81-7	bis(2-Ethylhexyl)phthalate	780	U
117-84-0	Di-n-octylphthalate	780	U
205-99-2	Benzo(b)fluoranthene	780	U
207-08-9	Benzo(k)fluoranthene	780	U
50-32-8	Benzo(a)pyrene	780	U
193-39-5	Indeno(1,2,3-cd)pyrene	780	U
53-70-3	Dibenz(a,h)anthracene	780	U
191-24-2	Benzo(g,h,i)perylene	780	U

(1) - Cannot be separated from Diphenylamine

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1668

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000(UL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(-2-Chloroethyl)Ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
108-60-1	2,2'-oxybis(1-Chloropropane)	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-di-n-propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
111-91-1	bis(2-Chloroethoxy)methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-Methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	780	U
208-96-8	Acenaphthylene	780	U
606-20-2	2,6-Dinitrotoluene	780	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	780	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B1668

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299678

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U299678S.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/09/96

Injection Volume: 2.0 uL Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
86-74-8	Carbazole	780	U
84-74-2	Di-n-butylphthalate	780 ~~240~~	U ~~JB~~
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	780	U
218-01-9	Chrysene	780	U
117-81-7	bis(2-Ethylhexyl)phthalate	780	U
117-84-0	Di-n-octylphthalate	780	U
205-99-2	Benzo(b)fluoranthene	780	U
207-08-9	Benzo(k)fluoranthene	780	U
50-32-8	Benzo(a)pyrene	780	U
193-39-5	Indeno(1,2,3-cd)pyrene	780	U
53-70-3	Dibenz(a,h)anthracene	780	U
191-24-2	Benzo(g,h,i)perylene	780	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

161214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.:

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000(UL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	780	U
111-44-4	bis(-2-Chloroethyl)Ether	780	U
95-57-8	2-Chlorophenol	780	U
541-73-1	1,3-Dichlorobenzene	780	U
106-46-7	1,4-Dichlorobenzene	780	U
95-50-1	1,2-Dichlorobenzene	780	U
95-48-7	2-Methylphenol	780	U
108-60-1	2,2'-oxybis(1-Chloropropane)	780	U
106-44-5	4-Methylphenol	780	U
621-64-7	N-Nitroso-di-n-propylamine	780	U
67-72-1	Hexachloroethane	780	U
98-95-3	Nitrobenzene	780	U
78-59-1	Isophorone	780	U
88-75-5	2-Nitrophenol	780	U
105-67-9	2,4-Dimethylphenol	780	U
111-91-1	bis(2-Chloroethoxy)methane	780	U
120-83-2	2,4-Dichlorophenol	780	U
120-82-1	1,2,4-Trichlorobenzene	780	U
91-20-3	Naphthalene	780	U
106-47-8	4-Chloroaniline	780	U
87-68-3	Hexachlorobutadiene	780	U
59-50-7	4-Chloro-3-Methylphenol	780	U
91-57-6	2-Methylnaphthalene	780	U
77-47-4	Hexachlorocyclopentadiene	780	U
88-06-2	2,4,6-Trichlorophenol	780	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	780	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	780	U
208-96-8	Acenaphthylene	780	U
606-20-2	2,6-Dinitrotoluene	780	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	780	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

161214

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299680

Sample wt/vol: 30.0 g(mL) G Lab File ID: U299680S.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/09/96

Injection Volume: 2.0(uL Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	780	U
121-14-2	2,4-Dinitrotoluene	780	U
84-66-2	Diethylphthalate	780	U
7005-72-3	4-Chlorophenyl-phenylether	780	U
86-73-7	Fluorene	780	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-nitrosodiphenylamine (1)	780	U
101-55-3	4-Bromophenyl-phenylether	780	U
118-74-1	Hexachlorobenzene	780	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	780	U
120-12-7	Anthracene	780	U
86-74-8	Carbazole	780	U
84-74-2	Di-n-butylphthalate	~~130~~	~~JB~~
206-44-0	Fluoranthene	780	U
129-00-0	Pyrene	780	U
85-68-7	Butylbenzylphthalate	780	U
91-94-1	3,3'-Dichlorobenzidine	780	U
56-55-3	Benzo(a)anthracene	780	U
218-01-9	Chrysene	780	U
117-81-7	bis(2-Ethylhexyl)phthalate	40	J
117-84-0	Di-n-octylphthalate	780	U
205-99-2	Benzo(b)fluoranthene	780	U
207-08-9	Benzo(k)fluoranthene	780	U
50-32-8	Benzo(a)pyrene	780	U
193-39-5	Indeno(1,2,3-cd)pyrene	780	U
53-70-3	Dibenz(a,h)anthracene	780	U
191-24-2	Benzo(g,h,i)perylene	780	U

(1) - Cannot be separated from Diphenylamine

SB 16 18-20'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO

161820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 16186

Matrix: soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U2396815.D

Level: (low/med) LOW Date Received: 04/1 /96

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 5 6

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	720	U
111-44-4	bis(-2-Chloroethyl)Ether	720	U
95-57-8	2-Chlorophenol	720	U
541-73-1	1,3-Dichlorobenzene	720	U
106-46-7	1,4-Dichlorobenzene	720	U
95-50-1	1,2-Dichlorobenzene	720	U
95-48-7	2-Methylphenol	72	U
108-60-1	2,2'-oxybis(1-Chloropropane)	720	U
106-44-5	4-Methylphenol	720	U
621-64-7	N-Nitroso-di-n-propylamine	720	U
67-72-1	Hexachloroethane	720	U
98-95-3	Nitrobenzene	720	U
78-59-1	Isophorone	720	U
88-75-5	2-Nitrophenol	720	U
105-67-9	2,4-Dimethylphenol	720	U
111-91-1	bis(2-Chloroethoxy)methane	720	U
120-83-2	2,4-Dichlorophenol	720	U
120-82-1	1,2,4-Trichlorobenzene	720	U
91-20-3	Naphthalene	720	U
106-47-8	4-Chloroaniline	720	U
87-68-3	Hexachlorobutadiene	720	U
59-50-7	4-Chloro-3-Methylphenol	720	U
91-57-6	2-Methylnaphthalene	720	U
77-47-4	Hexachlorocyclopentadiene	720	U
88-06-2	2,4,6-Trichlorophenol	720	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	720	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	720	U
208-96-8	Acenaphthylene	720	U
606-20-2	2,6-Dinitrotoluene	720	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	720	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

161820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58186

Matrix: (soil/water) SOIL Lab Sample ID: 299681

Sample wt/vol: 30.0 (g/mL) G Lab File ID: U299681S.D

Level: (low/med) LOW Date Received: 04/27/96

% Moisture: 9 decanted: (Y/N) N Date Extracted: 05/05/96

Concentrated Extract Volume: 1000 (UL) Date Analyzed: 05/09/96

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	720	U
121-14-2	2,4-Dinitrotoluene	720	U
84-66-2	Diethylphthalate	720	U
7005-72-3	4-Chlorophenyl-phenylether	720	U
86-73-7	Fluorene	720	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-nitrosodiphenylamine (1)	720	U
101-55-3	4-Bromophenyl-phenylether	720	U
118-74-1	Hexachlorobenzene	720	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	720	U
120-12-7	Anthracene	720	U
86-74-8	Carbazole	720	U
84-74-2	Di-n-butylphthalate	100	JB
206-44-0	Fluoranthene	720	U
129-00-0	Pyrene	720	U
85-68-7	Butylbenzylphthalate	720	U
91-94-1	3,3'-Dichlorobenzidine	720	U
56-55-3	Benzo(a)anthracene	720	U
218-01-9	Chrysene	720	U
117-81-7	bis(2-Ethylhexyl)phthalate	37	J
117-84-0	Di-n-octylphthalate	720	U
205-99-2	Benzo(b)fluoranthene	720	U
207-08-9	Benzo(k)fluoranthene	720	U
50-32-8	Benzo(a)pyrene	720	U
193-39-5	Indeno(1,2,3-cd)pyrene	720	U
53-70-3	Dibenz(a,h)anthracene	720	U
191-24-2	Benzo(g,h,i)perylene	720	U

(1) - Cannot be separated from Diphenylamine

SB25 2-4'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB25

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 5788

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level (low/med) LOW Date Received: 04/11/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor:

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	390	U
111-44-4	bis(2-Chloroethyl)Ether	390	U
95-57-8	2-Chlorophenol	390	U
541-73-1	1,3-Dichlorobenzene	390	U
106-46-7	1,4-Dichlorobenzene	390	U
95-50-1	1,2-Dichlorobenzene	390	U
95-48-7	2-Methylphenol	390	U
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U
106-44-5	4-Methylphenol	390	U
621-64-7	N-Nitroso-Di-n-Propylamine	390	U
67-72-1	Hexachloroethane	390	U
98-95-3	Nitrobenzene	390	U
78-59-1	Isophorone	390	U
88-75-5	2-Nitrophenol	390	U
105-67-9	2,4-Dimethylphenol	390	U
111-91-1	bis(2-Chloroethoxy)Methane	390	U
120-83-2	2,4-Dichlorophenol	390	U
120-82-1	1,2,4-Trichlorobenzene	390	U
91-20-3	Naphthalene	390	U
106-47-8	4-Chloroaniline	390	U
87-68-3	Hexachlorobutadiene	390	U
59-50-7	4-Chloro-3-Methylphenol	390	U
91-57-6	2-Methylnaphthalene	390	U
77-47-4	Hexachlorocyclopentadiene	390	U
88-06-2	2,4,6-Trichlorophenol	390	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	390	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	390	U
208-96-8	Acenaphthylene	390	U
606-20-2	2,6-Dinitrotoluene	390	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	390	U

0237

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB2524

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297891

Sample wt/vol: 30.0 (g/mL G Lab File ID: B298891S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 15 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	390	U
121-14-2	2,4-Dinitrotoluene	390	U
84-66-2	Diethylphthalate	390	U
7005-72-3	4-Chlorophenyl-phenylether	390	U
86-73-7	Fluorene	390	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	390	U
101-55-3	4-Bromophenyl-phenylether	390	U
118-74-1	Hexachlorobenzene	390	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	390	U
120-12-7	Anthracene	390	U
86-74-8	Carbazole	390	U
84-74-2	Di-n-Butylphthalate	390	U
206-44-0	Fluoranthene	390	U
129-00-0	Pyrene	390	U
85-68-7	Butylbenzylphthalate	390	U
91-94-1	3,3'-Dichlorobenzidine	390	U
56-55-3	Benzo(a)Anthracene	390	U
218-01-9	Chrysene	390	U
117-81-7	bis(2-Ethylhexyl)Phthalate	200	J
117-84-0	Di-n-Octyl Phthalate	390	U
205-99-2	Benzo(b)Fluoranthene	99	J
207-08-9	Benzo(k)Fluoranthene	390	U
50-32-8	Benzo(a)Pyrene	390	U
193-39-5	Indeno(1,2,3-cd)Pyrene	390	U
53-70-3	Dibenz(a,h)Anthracene	390	U
191-24-2	Benzo(g,h,i)Perylene	120	J

(1) - Cannot be separated from Diphenylamine

000139 Rev

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SB 2.5 6-8'

EPA SAMPLE NO.

SB[illegible]

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: B[illegible]

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B[illegible]

Level: (low/med) LOW Date Received: 04/[illegible]/94

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/[illegible]/94

Concentrated Extract Volume: 1000 (uL) Date Analyzed: [illegible]

Injection Volume: 2.0(uL) Dilution Factor: [illegible]

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB25868

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297893

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B297893S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/28/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-Butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)Anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)Phthalate	200	J
117-84-0	Di-n-Octyl Phthalate	370	U
205-99-2	Benzo(b)Fluoranthene	370	U
207-08-9	Benzo(k)Fluoranthene	370	U
50-32-8	Benzo(a)Pyrene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

SB25 12-14'

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.0 (g/mL) G Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/[illegible]/96

Injection Volume: 2.0(uL) Dilution Fact.

GPC Cleanup: (Y/N) Y pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	[illegible]	
95-48-7	2-Methylphenol	380	
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	380	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB251214

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57883

Matrix: (soil/water) SOIL Lab Sample ID: 297895

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B297895S

Level: (low/med) LOW Date Received: 04/11/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 04/16/96

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/29/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-Butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	380	U
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

000135

DB25 18-2

1B

EPA SAMPLE NO.

B251807

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 23869

Sample wt/vol: 30.1 (g/mL) G Lab File ID: U2986985.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/26/96

Concentrated Extract Volume: 1000 (UL) Date Analyzed: 05/02/96

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	740	U
111-44-4	bis(-2-Chloroethyl)Ether	740	U
95-57-8	2-Chlorophenol	740	U
541-73-1	1,3-Dichlorobenzene	740	U
106-46-7	1,4-Dichlorobenzene	740	U
95-50-1	1,2-Dichlorobenzene	740	U
95-48-7	2-Methylphenol	740	U
108-60-1	2,2'-oxybis(1-Chloropropane)	740	U
106-44-5	4-Methylphenol	740	U
621-64-7	N-Nitroso-di-n-propylamine	740	U
67-72-1	Hexachloroethane	740	U
98-95-3	Nitrobenzene	740	U
78-59-1	Isophorone	740	U
88-75-5	2-Nitrophenol	740	U
105-67-9	2,4-Dimethylphenol	740	U
111-91-1	bis(2-Chloroethoxy)methane	740	U
120-83-2	2,4-Dichlorophenol	740	U
120-82-1	1,2,4-Trichlorobenzene	740	U
91-20-3	Naphthalene	740	U
106-47-8	4-Chloroaniline	740	U
87-68-3	Hexachlorobutadiene	740	U
59-50-7	4-Chloro-3-Methylphenol	740	U
91-57-6	2-Methylnaphthalene	740	U
77-47-4	Hexachlorocyclopentadiene	740	U
88-06-2	2,4,6-Trichlorophenol	740	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	740	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	740	U
208-96-8	Acenaphthylene	740	U
606-20-2	2,6-Dinitrotoluene	740	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	740	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B251820

Lab Name: INCHCAPE ENVIRONMENTAL Contract: 96210

Lab Code: INCHVT Case No.: 96210 SAS No.: SDG No.: 58015

Matrix: (soil/water) SOIL Lab Sample ID: 298695

Sample wt/vol: 30.1 (g/mL) G Lab File ID: U298695S.D

Level: (low/med) LOW Date Received: 04/23/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/26/96

Concentrated Extract Volume: 1000(UL) Date Analyzed: 05/02/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) Y pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	740	U
121-14-2	2,4-Dinitrotoluene	740	U
84-66-2	Diethylphthalate	740	U
7005-72-3	4-Chlorophenyl-phenylether	740	U
86-73-7	Fluorene	740	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-nitrosodiphenylamine (1)	740	U
101-55-3	4-Bromophenyl-phenylether	740	U
118-74-1	Hexachlorobenzene	740	U
87-86-5	Pentachlorophenol	56	J
85-01-8	Phenanthrene	740	U
120-12-7	Anthracene	740	U
86-74-8	Carbazole	740	U
84-74-2	Di-n-butylphthalate	740	U
206-44-0	Fluoranthene	740	U
129-00-0	Pyrene	740	U
85-68-7	Butylbenzylphthalate	740	U
91-94-1	3,3'-Dichlorobenzidine	740	U
56-55-3	Benzo(a)anthracene	740	U
218-01-9	Chrysene	740	U
117-81-7	bis(2-Ethylhexyl)phthalate	740	U
117-84-0	Di-n-octylphthalate	740	U
205-99-2	Benzo(b)fluoranthene	740	U
207-08-9	Benzo(k)fluoranthene	740	U
50-32-8	Benzo(a)pyrene	740	U
193-39-5	Indeno(1,2,3-cd)pyrene	740	U
53-70-3	Dibenz(a,h)anthracene	740	U
191-24-2	Benzo(g,h,i)perylene	740	U

(1) - Cannot be separated from Diphenylamine

SB26 2-4'

EPA SAMPLE NO

B2620

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 29823L

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2982323S

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	760	U
111-44-4	bis(2-Chloroethyl)Ether	760	U
95-57-8	2-Chlorophenol	760	U
541-73-1	1,3-Dichlorobenzene	760	U
106-46-7	1,4-Dichlorobenzene	760	U
95-50-1	1,2-Dichlorobenzene	760	U
95-48-7	2-Methylphenol	760	U
108-60-1	2,2'-oxybis(1-Chloropropane)	760	U
106-44-5	4-Methylphenol	760	U
621-64-7	N-Nitroso-Di-n-Propylamine	760	U
67-72-1	Hexachloroethane	760	U
98-95-3	Nitrobenzene	760	U
78-59-1	Isophorone	760	U
88-75-5	2-Nitrophenol	760	U
105-67-9	2,4-Dimethylphenol	760	U
111-91-1	bis(2-Chloroethoxy)Methane	760	U
120-83-2	2,4-Dichlorophenol	760	U
120-82-1	1,2,4-Trichlorobenzene	760	U
91-20-3	Naphthalene	760	U
106-47-8	4-Chloroaniline	760	U
87-68-3	Hexachlorobutadiene	760	U
59-50-7	4-Chloro-3-Methylphenol	760	U
91-57-6	2-Methylnaphthalene	760	U
77-47-4	Hexachlorocyclopentadiene	760	U
88-06-2	2,4,6-Trichlorophenol	760	U
95-95-4	2,4,5-Trichlorophenol	3700	U
91-58-7	2-Chloronaphthalene	760	U
88-74-4	2-Nitroaniline	3700	U
131-11-3	Dimethylphthalate	760	U
208-96-8	Acenaphthylene	760	U
606-20-2	2,6-Dinitrotoluene	760	U
99-09-2	3-Nitroaniline	3700	U
83-32-9	Acenaphthene	760	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2624

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298232

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2982323S

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 14 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	3700	U
100-02-7	4-Nitrophenol	3700	U
132-64-9	Dibenzofuran	760	U
121-14-2	2,4-Dinitrotoluene	760	U
84-66-2	Diethylphthalate	8300	
7005-72-3	4-Chlorophenyl-phenylether	760	U
86-73-7	Fluorene	760	U
100-01-6	4-Nitroaniline	3700	U
534-52-1	4,6-Dinitro-2-methylphenol	3700	U
86-30-6	N-Nitrosodiphenylamine (1)	760	U
101-55-3	4-Bromophenyl-phenylether	760	U
118-74-1	Hexachlorobenzene	760	U
87-86-5	Pentachlorophenol	3700	U
85-01-8	Phenanthrene	760	U
120-12-7	Anthracene	760	U
86-74-8	Carbazole	760	U
84-74-2	Di-n-Butylphthalate	760	U
206-44-0	Fluoranthene	760	U
129-00-0	Pyrene	760	U
85-68-7	Butylbenzylphthalate	760	U
91-94-1	3,3'-Dichlorobenzidine	760	U
56-55-3	Benzo(a)Anthracene	760	U
218-01-9	Chrysene	760	U
117-81-7	bis(2-Ethylhexyl)Phthalate	760	U
117-84-0	Di-n-Octyl Phthalate	760	U
205-99-2	Benzo(b)Fluoranthene	760	U
207-08-9	Benzo(k)Fluoranthene	760	U
50-32-8	Benzo(a)Pyrene	760	U
193-39-5	Indeno(1,2,3-cd)Pyrene	760	U
53-70-3	Dibenz(a,h)Anthracene	760	U
191-24-2	Benzo(g,h,i)Perylene	760	U

(1) - Cannot be separated from Diphenylamine

SB 26 6-8'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID:

Sample wt/vol: 30.0 (g/mL) G Lab File ID:

Level: (low/med) LOW Date Received:

% Moisture: 12 decanted: (Y/N) N Date Extracted:

Concentrated Extract Volume: 2000 (uL) Date Analyzed:

Injection Volume: 2.0(uL) Dilution Factor: 5

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene		
95-48-7	2-Methylphenol		
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone		
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline		
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B26863
SRC
7/12/96

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298233

Sample wt/vol: 30.0 (g/mL) G Lab File ID: AP2982332S

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 12 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-Butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	380	U
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

SB 2C 12-14'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt vol: 30.0 (g/mL) G Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 8 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: [illegible]

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)Ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
95-50-1	1,2-Dichlorobenzene	[illegible]	U
95-48-7	2-Methylphenol	[illegible]	[illegible]
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-Di-n-Propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	[illegible]	U
78-59-1	Isophorone	[illegible]	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
111-91-1	bis(2-Chloroethoxy)Methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	360	U
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-Methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	360	U

EPA SAMPLE NO.

261214

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298234

Sample wt/vol: 30.0 (g/mL) G Lab File ID: AP29823425

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 8 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	360	U
121-14-2	2,4-Dinitrotoluene	360	U
84-66-2	Diethylphthalate	360	U
7005-72-3	4-Chlorophenyl-phenylether	360	U
86-73-7	Fluorene	360	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	360	U
101-55-3	4-Bromophenyl-phenylether	360	U
118-74-1	Hexachlorobenzene	360	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	360	U
120-12-7	Anthracene	360	U
86-74-8	Carbazole	360	U
84-74-2	Di-n-Butylphthalate	360	U
206-44-0	Fluoranthene	360	U
129-00-0	Pyrene	360	U
85-68-7	Butylbenzylphthalate	360	U
91-94-1	3,3'-Dichlorobenzidine	360	U
56-55-3	Benzo(a)Anthracene	360	U
218-01-9	Chrysene	360	U
117-81-7	bis(2-Ethylhexyl)Phthalate	360	U
117-84-0	Di-n-Octyl Phthalate	360	U
205-99-2	Benzo(b)Fluoranthene	360	U
207-08-9	Benzo(k)Fluoranthene	360	U
50-32-8	Benzo(a)Pyrene	360	U
193-39-5	Indeno(1,2,3-cd)Pyrene	360	U
53-70-3	Dibenz(a,h)Anthracene	360	U
191-24-2	Benzo(g,h,i)Perylene	360	U

(1) - Cannot be separated from Diphenylamine

SB20 18-20'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

SDG NO.

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]36

Matrix: soil/water) SOIL Lab Sample ID: [illegible]

Sample wt vol: 30.0 (g/mL) G Lab File ID: AB[illegible]6S

Level: (low/med) LOW Date Received: 04/[illegible]/96

% Moisture: 6 decanted: (Y/N) N Date Extracted: 04/[illegible]/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/[illegible]/96

Injection Volume: 2.0(uL) Dilution Factor: [illegible]

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)Ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-Di-n-Propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
111-91-1	bis(2-Chloroethoxy)Methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-Methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U
99-09-2	3-Nitroaniline	1700	U
83-32-9	Acenaphthene	350	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

261820

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 293236

Sample wt/vol: 30.0 (g/mL) G Lab File ID: AP2982362S

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 6 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1700	U
100-02-7	4-Nitrophenol	1700	U
132-64-9	Dibenzofuran	350	U
121-14-2	2,4-Dinitrotoluene	350	U
84-66-2	Diethylphthalate	350	U
7005-72-3	4-Chlorophenyl-phenylether	350	U
86-73-7	Fluorene	350	U
100-01-6	4-Nitroaniline	1700	U
534-52-1	4,6-Dinitro-2-methylphenol	1700	U
86-30-6	N-Nitrosodiphenylamine (1)	350	U
101-55-3	4-Bromophenyl-phenylether	350	U
118-74-1	Hexachlorobenzene	350	U
87-86-5	Pentachlorophenol	1700	U
85-01-8	Phenanthrene	350	U
120-12-7	Anthracene	350	U
86-74-8	Carbazole	350	U
84-74-2	Di-n-Butylphthalate	350	U
206-44-0	Fluoranthene	350	U
129-00-0	Pyrene	350	U
85-68-7	Butylbenzylphthalate	350	U
91-94-1	3,3'-Dichlorobenzidine	350	U
56-55-3	Benzo(a)Anthracene	350	U
218-01-9	Chrysene	350	U
117-81-7	bis(2-Ethylhexyl)Phthalate	350	U
117-84-0	Di-n-Octyl Phthalate	350	U
205-99-2	Benzo(b)Fluoranthene	350	U
207-08-9	Benzo(k)Fluoranthene	350	U
50-32-8	Benzo(a)Pyrene	350	U
193-39-5	Indeno(1,2,3-cd)Pyrene	350	U
53-70-3	Dibenz(a,h)Anthracene	350	U
191-24-2	Benzo(g,h,i)Perylene	350	U

(1) - Cannot be separated from Diphenylamine

SO 27 2-4'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

92724

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 278172

Sample wt vol: 30.1 (g/mL) G Lab File ID: A29817208

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2724

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAT Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298172

Sample wt/vol: 30.1 (g/mL) G Lab File ID: A2981722S

Level: (low/med) LOW Date Received: 04/18/96

% Moisture: 11 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-Butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)Anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)Phthalate	370	U
117-84-0	Di-n-Octyl Phthalate	370	U
205-99-2	Benzo(b)Fluoranthene	370	U
207-08-9	Benzo(k)Fluoranthene	370	U
50-32-8	Benzo(a)Pyrene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

SB 27 6-8

EPA SAMPLE NO.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 5[illegible]916

Matrix: (soil/water) SOIL Lab Sample ID: [illegible]

Sample wt/vol: 30.1 (g/mL) G Lab File ID: [illegible]

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/3[illegible]

Injection Volume: 2.0(uL) Dilution Fact:

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400	U
111-44-4	bis(2-Chloroethyl)Ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-Di-n-Propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
111-91-1	bis(2-Chloroethoxy)Methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	400	U
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-Methylphenol	400	U
91-57-6	2-Methylnaphthalene	400	U
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	[illegible]	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	400	U
606-20-2	2,6-Dinitrotoluene	400	U
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	400	U

3/9[illegible]

000115

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B2768

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57916

Matrix: (soil/water) SOIL Lab Sample ID: 298169

Sample wt/vol: 30.1 (g/mL) G Lab File ID: BP2981692S

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: 17 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	400	U
121-14-2	2,4-Dinitrotoluene	400	U
84-66-2	Diethylphthalate	400	U
7005-72-3	4-Chlorophenyl-phenylether	400	U
86-73-7	Fluorene	400	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	400	U
101-55-3	4-Bromophenyl-phenylether	400	U
118-74-1	Hexachlorobenzene	400	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene	400	U
120-12-7	Anthracene	400	U
86-74-8	Carbazole	400	U
84-74-2	Di-n-Butylphthalate	120	J
206-44-0	Fluoranthene	400	U
129-00-0	Pyrene	400	U
85-68-7	Butylbenzylphthalate	400	U
91-94-1	3,3'-Dichlorobenzidine	400	U
56-55-3	Benzo(a)Anthracene	400	U
218-01-9	Chrysene	400	U
117-81-7	bis(2-Ethylhexyl)Phthalate	400	U
117-84-0	Di-n-Octyl Phthalate	400	U
205-99-2	Benzo(b)Fluoranthene	400	U
207-08-9	Benzo(k)Fluoranthene	400	U
50-32-8	Benzo(a)Pyrene	400	U
193-39-5	Indeno(1,2,3-cd)Pyrene	400	U
53-70-3	Dibenz(a,h)Anthracene	400	U
191-24-2	Benzo(g,h,i)Perylene	400	U

(1) - Cannot be separated from Diphenylamine

SB 27 12-14'

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298173

Sample wt/vol: 30.1 (g/mL) G Lab File ID: A0981732S

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0 (uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)Ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-Di-n-Propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
111-91-1	bis(2-Chloroethoxy)Methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	370	U
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-Methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B271214

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298173

Sample wt/vol: 30.1 (g/mL) G Lab File ID: A29817325

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: 10 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-Butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	370	U
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	370	U
56-55-3	Benzo(a)Anthracene	370	U
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)Phthalate	370	U
117-84-0	Di-n-Octyl Phthalate	370	U
205-99-2	Benzo(b)Fluoranthene	370	U
207-08-9	Benzo(k)Fluoranthene	370	U
50-32-8	Benzo(a)Pyrene	370	U
193-39-5	Indeno(1,2,3-cd)Pyrene	370	U
53-70-3	Dibenz(a,h)Anthracene	370	U
191-24-2	Benzo(g,h,i)Perylene	370	U

(1) - Cannot be separated from Diphenylamine

SB 27 18-20

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B[illegible]

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: [illegible]

Matrix: (soil/water) SOIL Lab Sample ID: 298171

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP[illegible] 2S

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/[illegible]

Injection Volume: 2.0(uL) Dilution Factor: [illegible]

GPC Cleanup: (Y/N) N pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)Ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-Di-n-Propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
111-91-1	bis(2-Chloroethoxy)Methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-Methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	380	U

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

B271820

Lab Name: AQUATEC INC Contract: 96210

Lab Code: AQUAI Case No.: 96210 SAS No.: SDG No.: 57936

Matrix: (soil/water) SOIL Lab Sample ID: 298171

Sample wt/vol: 30.1 (g/mL) G Lab File ID: AP2981712S

Level: (low/med) LOW Date Received: 04/17/96

% Moisture: 13 decanted: (Y/N) N Date Extracted: 04/19/96

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 04/30/96

Injection Volume: 2.0(uL) Dilution Factor: 0.5

GPC Cleanup: (Y/N) N pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-Butylphthalate	84	J
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	380	U
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	380	U
56-55-3	Benzo(a)Anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)Phthalate	380	U
117-84-0	Di-n-Octyl Phthalate	380	U
205-99-2	Benzo(b)Fluoranthene	380	U
207-08-9	Benzo(k)Fluoranthene	380	U
50-32-8	Benzo(a)Pyrene	380	U
193-39-5	Indeno(1,2,3-cd)Pyrene	380	U
53-70-3	Dibenz(a,h)Anthracene	380	U
191-24-2	Benzo(g,h,i)Perylene	380	U

(1) - Cannot be separated from Diphenylamine

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB324

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96000_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.:

Matrix (soil/water): SOIL_ Lab Sample ID:

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _81.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13900		*	P
7440-36-0	Antimony	0.47	B	N	P
7440-38-2	Arsenic	16.9			P
7440-39-3	Barium	62.8			P
7440-41-7	Beryllium	0.13	B		P
7440-43-9	Cadmium	0.06	B		P
7440-70-2	Calcium	1400		E	P
7440-47-3	Chromium	16.8		*	P
7440-48-4	Cobalt	9.3			P
7440-50-8	Copper	24.0			P
7439-89-6	Iron	27500		E	P
7439-92-1	Lead	14.7		EN	P
7439-95-4	Magnesium	2510		E	P
7439-96-5	Manganese	482		E	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	20.3		E	P
7440-09-7	Potassium	1830			P
7782-49-2	Selenium	1.4		N	P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	20.6	U		P
7440-28-0	Thallium	0.64	B		P
7440-62-2	Vanadium	40.1			P
7440-66-6	Zinc	77.0		E	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

U.S. EPA - CLP

SB3 6-8'

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB3 64

SB368

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96000_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57883_

Matrix (soil/water): SOIL_ Lab Sample ID: 297899

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _83.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	11300		* J	P
7440-36-0	Antimony	0.47	B	N J	P
7440-38-2	Arsenic	24.5			P
7440-39-3	Barium	62.4			P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	0.20	B		P
7440-70-2	Calcium	1330		E J	P
7440-47-3	Chromium	14.8		* J	P
7440-48-4	Cobalt	8.1			P
7440-50-8	Copper	25.8			P
7439-89-6	Iron	26600		E J	P
7439-92-1	Lead	14.0		EN J	P
7439-95-4	Magnesium	2100		E J	P
7439-96-5	Manganese	565		E J	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	22.7		E J	P
7440-09-7	Potassium	1410			P
7782-49-2	Selenium	1.2		N J	P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	20.2	U		P
7440-28-0	Thallium	0.58	B		P
7440-62-2	Vanadium	32.6			P
7440-66-6	Zinc	80.8		E J	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

(00001)

U.S. EPA - CLP

SB3 [illegible]

1

INORGANIC ANALYSES DATA SHEET

EPA [illegible]E NO.

B31214

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210__

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: [illegible]7_

Matrix (soil/water): SOIL_ Lab Sample

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _83.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum_	12400		E	P
7440-36-0	Antimony_	0.46	B		P
7440-38-2	Arsenic__	18.1		E	P
7440-39-3	Barium___	59.4		E	P
7440-41-7	Beryllium	0.29	B		P
7440-43-9	Cadmium__	0.73		E	P
7440-70-2	Calcium__	1780		E	P
7440-47-3	Chromium_	18.2		E	P
7440-48-4	Cobalt___	8.9		E	P
7440-50-8	Copper___	25.1			P
7439-89-6	Iron_____	28400		E	P
7439-92-1	Lead_____	16.1		E	P
7439-95-4	Magnesium	2830		E	P
7439-96-5	Manganese	474		E	P
7439-97-6	Mercury__	0.10	U		CV
7440-02-0	Nickel___	34.1		E	P
7440-09-7	Potassium	2620		E	P
7782-49-2	Selenium_	1.3			P
7440-22-4	Silver___	0.12	U		P
7440-23-5	Sodium___	74.3	B		P
7440-28-0	Thallium_	1.2			P
7440-62-2	Vanadium_	50.0		E	P
7440-66-6	Zinc_____	126		E	P
	Cyanide__				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN TLM02.1

U.S. EPA - CLP

SB3 18-20'

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

B31820

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57907_

Matrix (soil/water): SOIL_ Lab Sample ID: 297914

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _90.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6540		E	P
7440-36-0	Antimony	2.0	B		P
7440-38-2	Arsenic	116		E	P
7440-39-3	Barium	52.1		E	P
7440-41-7	Beryllium	0.17	B		P
7440-43-9	Cadmium	1.9		E	P
7440-70-2	Calcium	51600		E	P
7440-47-3	Chromium	10.2		E	P
7440-48-4	Cobalt	11.5		E	P
7440-50-8	Copper	34.1			P
7439-89-6	Iron	59300		E	P
7439-92-1	Lead	64.3		E	P
7439-95-4	Magnesium	23600		E	P
7439-96-5	Manganese	489		E	P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	33.3		E	P
7440-09-7	Potassium	1810		E	P
7782-49-2	Selenium	2.3			P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	41.5	B		P
7440-28-0	Thallium	1.5			P
7440-62-2	Vanadium	30.5		E	P
7440-66-6	Zinc	167		E	P
	Cyanide				NR

SEC 6/18/96

Color Before: LT.BROWN_ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210__

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 1_

Matrix (soil/water): SOIL_ Lab Sample ID:

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _76.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	15400			P
7440-36-0	Antimony	1.2	B	N	P
7440-38-2	Arsenic	28.0		*	P
7440-39-3	Barium	107			P
7440-41-7	Beryllium	0.95		E	P
7440-43-9	Cadmium	0.84			P
7440-70-2	Calcium	9330			P
7440-47-3	Chromium	19.9			P
7440-48-4	Cobalt	13.8			P
7440-50-8	Copper	38.5			P
7439-89-6	Iron	36600		*	P
7439-92-1	Lead	52.4		E*	P
7439-95-4	Magnesium	6700			P
7439-96-5	Manganese	862			P
7439-97-6	Mercury	0.10			CV
7440-02-0	Nickel	33.5		EN	P
7440-09-7	Potassium	2830	W	E	P
7782-49-2	Selenium	0.83		N*	P
7440-22-4	Silver	0.17	U		P
7440-23-5	Sodium	148	B		P
7440-28-0	Thallium	0.60	U	N	P
7440-62-2	Vanadium	49.7		*	P
7440-66-6	Zinc	149		EN*	P
	Cyanide				NR

6/13/96

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

SB5 2-4' Dup

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
SB524D (Dup)

B524D

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57911_

Matrix (soil/water): SOIL_ Lab Sample ID: 297934

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _76.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	17500			P
7440-36-0	Antimony	0.97	B	N J	P
7440-38-2	Arsenic	28.3		* J	P
7440-39-3	Barium	121			P
7440-41-7	Beryllium	1.1		E J	P
7440-43-9	Cadmium	0.78			P
7440-70-2	Calcium	8550			P
7440-47-3	Chromium	22.1			P
7440-48-4	Cobalt	14.1			P
7440-50-8	Copper	37.4			P
7439-89-6	Iron	38100		* J	P
7439-92-1	Lead	50.1		E* J	P
7439-95-4	Magnesium	6350			P
7439-96-5	Manganese	889			P
7439-97-6	Mercury	0.11			CV
7440-02-0	Nickel	36.1		EN* J	P
7440-09-7	Potassium	3260	W	E J	P
7782-49-2	Selenium	0.82		N* J	P
7440-22-4	Silver	0.16	U		P
7440-23-5	Sodium	145	B		P
7440-28-0	Thallium	0.56	U	N J	P
7440-62-2	Vanadium	56.6		* J	P
7440-66-6	Zinc	150		EN* J	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

SB5 6-8'

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB5B3

B568

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 5791_

Matrix (soil/water): SOIL_ Lab Sample ID: 29[illegible]

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _84.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	13100			P
7440-36-0	Antimony	1.0	B	N J	P
7440-38-2	Arsenic	23.9		*	P
7440-39-3	Barium	107			P
7440-41-7	Beryllium	0.90		E J	P
7440-43-9	Cadmium	0.65			P
7440-70-2	Calcium	6590			P
7440-47-3	Chromium	16.8			P
7440-48-4	Cobalt	12.2			P
7440-50-8	Copper	33.1			P
7439-89-6	Iron	31800		* J	P
7439-92-1	Lead	41.5		E* J	P
7439-95-4	Magnesium	4620			P
7439-96-5	Manganese	858			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	30.2		EN* J	P
7440-09-7	Potassium	2320	U	E J	P
7782-49-2	Selenium	0.62		N* J	P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	116	B		P
7440-28-0	Thallium	0.56	U	N J	P
7440-62-2	Vanadium	41.3		* J	P
7440-66-6	Zinc	116		EN* J	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ____

Comments:

FORM I - IN ILM02.1

SBS 1214'

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
SBS 1214
B51214

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57911_

Matrix (soil/water): SOIL_ Lab Sample ID: 297938

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _89.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4250			P
7440-36-0	Antimony	0.67	B	N J	P
7440-38-2	Arsenic	21.9		* J	P
7440-39-3	Barium	57.2			P
7440-41-7	Beryllium	0.38	B	E J	P
7440-43-9	Cadmium	0.81			P
7440-70-2	Calcium	84100			P
7440-47-3	Chromium	7.5			P
7440-48-4	Cobalt	5.8			P
7440-50-8	Copper	20.5			P
7439-89-6	Iron	24300		* J	P
7439-92-1	Lead	15.1		E* J	P
7439-95-4	Magnesium	30500			P
7439-96-5	Manganese	1260			P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	19.0		EN* J	P
7440-09-7	Potassium	1490	U	E J	P
7782-49-2	Selenium	0.36	U	N* J	P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	165	B		P
7440-28-0	Thallium	0.49	U	N J	P
7440-62-2	Vanadium	21.7		* J	P
7440-66-6	Zinc	109		EN* J	P
	Cyanide				NR

SJC 6/13/94

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: YES___

Comments:
STONES_WERE_PRESENT._____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B51820

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57911_

Matrix (soil/water): SOIL_ Lab Sample ID: [illegible]

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _89.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4140			P
7440-36-0	Antimony	1.5	B	N	P
7440-38-2	Arsenic	35.3		*	P
7440-39-3	Barium	55.3			P
7440-41-7	Beryllium	0.28	B	E	P
7440-43-9	Cadmium	0.85			P
7440-70-2	Calcium	107000			P
7440-47-3	Chromium	8.6			P
7440-48-4	Cobalt	7.8			P
7440-50-8	Copper	19.4			P
7439-89-6	Iron	38400		*	P
7439-92-1	Lead	51.0		E*	P
7439-95-4	Magnesium	25000			P
7439-96-5	Manganese	569			P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	25.3		EN*	P
7440-09-7	Potassium	1220	U	E	P
7782-49-2	Selenium	2.3		N*	P
7440-22-4	Silver	0.16	B		P
7440-23-5	Sodium	70.7	B		P
7440-28-0	Thallium	0.53	U	N	P
7440-62-2	Vanadium	22.5		*	P
7440-66-6	Zinc	111		EN*	P
	Cyanide				NR

SRC 6/13/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: YES___

Comments:

STONES_WERE_PRESENT._TEXTURE_WAS_VERY_COARSE._____

5311 2-4'

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
SB 1124
B1124

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57953_

Matrix (soil/water): SOIL_ Lab Sample ID: 298437

Level (low/med): LOW__ Date Received: 04/19/96

% Solids: _81.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	18700			P
7440-36-0	Antimony	0.73	B	N	P
7440-38-2	Arsenic	16.1			P
7440-39-3	Barium	95.0			P
7440-41-7	Beryllium	0.74			P
7440-43-9	Cadmium	0.04	U		P
7440-70-2	Calcium	2290			P
7440-47-3	Chromium	20.8			P
7440-48-4	Cobalt	11.9			P
7440-50-8	Copper	23.0			P
7439-89-6	Iron	28500			P
7439-92-1	Lead	25.6		E*	P
7439-95-4	Magnesium	2860			P
7439-96-5	Manganese	696		*	P
7439-97-6	Mercury	0.09	U		CV
7440-02-0	Nickel	22.7			P
7440-09-7	Potassium	2210			P
7782-49-2	Selenium	0.61		N	P
7440-22-4	Silver	0.16	U		P
7440-23-5	Sodium	26.3	U		P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	49.3			P
7440-66-6	Zinc	76.8			P
	Cyanide				NR

JRC 6/19/96

Color Before: BROWN____ Clarity Before: _____ Texture: CLAY__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

000003

SB11 6-8'

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB11 6-8

B1168

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57953_

Matrix (soil/water): SOIL_ Lab Sample ID: [illegible]

Level (low/med): LOW__ Date Received: 04/19/96

% Solids: _82.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7850			P
7440-36-0	Antimony	0.27	B	N	P
7440-38-2	Arsenic	13.9			P
7440-39-3	Barium	40.0			P
7440-41-7	Beryllium	0.46	B		P
7440-43-9	Cadmium	0.32	B		P
7440-70-2	Calcium	659			P
7440-47-3	Chromium	10.4			P
7440-48-4	Cobalt	6.7			P
7440-50-8	Copper	23.2			P
7439-89-6	Iron	22300			P
7439-92-1	Lead	11.5		E*	P
7439-95-4	Magnesium	1490			P
7439-96-5	Manganese	172		*	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	19.5			P
7440-09-7	Potassium	1260			P
7782-49-2	Selenium	0.41	U	N	P
7440-22-4	Silver	0.16	U		P
7440-23-5	Sodium	26.4	U		P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	24.0			P
7440-66-6	Zinc	82.5			P
	Cyanide				NR

6/19/96

Color Before: BROWN____ Clarity Before: _____ Texture: CLAY__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

SB11 12-14'

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB 11 12 14

B11214 SB24

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57953_

Matrix (soil/water): SOIL_ Lab Sample ID: 298440

Level (low/med): LOW__ Date Received: 04/19/96

% Solids: _73.5

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12600			P
7440-36-0	Antimony	7.3	B	N J	P
7440-38-2	Arsenic	185			P
7440-39-3	Barium	61.1			P
7440-41-7	Beryllium	0.71			P
7440-43-9	Cadmium	1.8			P
7440-70-2	Calcium	3400			P
7440-47-3	Chromium	20.0			P
7440-48-4	Cobalt	26.2			P
7440-50-8	Copper	46.2			P
7439-89-6	Iron	112000			P
7439-92-1	Lead	122		E* J	P
7439-95-4	Magnesium	2410			P
7439-96-5	Manganese	1800		* J	P
7439-97-6	Mercury	0.24			CV
7440-02-0	Nickel	76.0			P
7440-09-7	Potassium	2480			P
7782-49-2	Selenium	1.2		N J	P
7440-22-4	Silver	0.25	B		P
7440-23-5	Sodium	93.3	B		P
7440-28-0	Thallium	0.61	U		P
7440-62-2	Vanadium	55.0			P
7440-66-6	Zinc	256			P
	Cyanide				NR

4LC 4/19/96

Color Before: BROWN____ Clarity Before: _____ Texture: CLAY__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: [illegible]

Matrix (soil/water): SOIL_ Lab Sample ID.: [illegible]

Level (low/med): LOW__ Date Received: 04/19/96

% Solids: _89.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6720			P
7440-36-0	Antimony	0.35	B	N	P
7440-38-2	Arsenic	34.2			P
7440-39-3	Barium	86.4			P
7440-41-7	Beryllium	0.39	B		P
7440-43-9	Cadmium	0.38	B		P
7440-70-2	Calcium	92500			P
7440-47-3	Chromium	9.4			P
7440-48-4	Cobalt	6.3			P
7440-50-8	Copper	16.9			P
7439-89-6	Iron	20600			P
7439-92-1	Lead	19.7		E*	P
7439-95-4	Magnesium	42500			P
7439-96-5	Manganese	372		*	P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	16.7			P
7440-09-7	Potassium	2200			P
7782-49-2	Selenium	0.38	U	N	P
7440-22-4	Silver	0.30	B		P
7440-23-5	Sodium	116	B		P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	24.9			P
7440-66-6	Zinc	57.5			P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: CLAY__

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: YES___

Comments:

STONES_WERE_PRESENT._____

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U.S. EPA - CLP

SB14 2-4'

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
SB 14 2-4

B1424

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58015_

Matrix (soil/water): SOIL_ Lab Sample ID: 299109

Level (low/med): LOW__ Date Received: 04/25/96

% Solids: _86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8700			P
7440-36-0	Antimony	0.53	B	N	P
7440-38-2	Arsenic	27.9		*	P
7440-39-3	Barium	54.6			P
7440-41-7	Beryllium	0.64			P
7440-43-9	Cadmium	0.17	B		P
7440-70-2	Calcium	1040			P
7440-47-3	Chromium	12.2			P
7440-48-4	Cobalt	10.1			P
7440-50-8	Copper	29.1			P
7439-89-6	Iron	32000		E	P
7439-92-1	Lead	21.3		E*	P
7439-95-4	Magnesium	1930		*	P
7439-96-5	Manganese	457		E*	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	28.6		EN	P
7440-09-7	Potassium	1410			P
7782-49-2	Selenium	0.54	B	N	P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	66.4	B		P
7440-28-0	Thallium	0.51	U	N	P
7440-62-2	Vanadium	26.5		*	P
7440-66-6	Zinc	120		N	P
_____	Cyanide				NR

SRC 6/19/96

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

SB 14 6-8'

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB 14 6-8

B1468

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 50015_

Matrix (soil/water): SOIL_ Lab Sample ID: 299110

Level (low/med): LOW__ Date Received: 04/25/96

% Solids: _84.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6390			P
7440-36-0	Antimony	2.0	B	N	P
7440-38-2	Arsenic	182		*	P
7440-39-3	Barium	86.7			P
7440-41-7	Beryllium	0.55	B		P
7440-43-9	Cadmium	0.69			P
7440-70-2	Calcium	3000			P
7440-47-3	Chromium	10.1			P
7440-48-4	Cobalt	14.7			P
7440-50-8	Copper	41.0			P
7439-89-6	Iron	90000		E	P
7439-92-1	Lead	117		E*	P
7439-95-4	Magnesium	2750		*	P
7439-96-5	Manganese	2190		E*	P
7439-97-6	Mercury	0.06			CV
7440-02-0	Nickel	61.5		EN	P
7440-09-7	Potassium	1050			P
7782-49-2	Selenium	1.8		N	P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	24.6	U		P
7440-28-0	Thallium	0.53	U	N	P
7440-62-2	Vanadium	23.6		*	P
7440-66-6	Zinc	365		N	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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6/19/96

U.S. EPA - CLP

SB14 12-14'

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

SB14 12-14

141214

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58100_

Matrix (soil/water): SOIL_ Lab Sample ID: 299111

Level (low/med): LOW__ Date Received: 04/25/96

% Solids: _91.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5290			P
7440-36-0	Antimony	0.53	B	N J	P
7440-38-2	Arsenic	33.0		N* J	P
7440-39-3	Barium	73.9			P
7440-41-7	Beryllium	0.45	B	E J	P
7440-43-9	Cadmium	0.49	B		P
7440-70-2	Calcium	70900		* J	P
7440-47-3	Chromium	8.8		E J	P
7440-48-4	Cobalt	9.5			P
7440-50-8	Copper	29.7		EN* J	P
7439-89-6	Iron	36800		* J	P
7439-92-1	Lead	18.6		E* J	P
7439-95-4	Magnesium	18600		* J	P
7439-96-5	Manganese	610		* J	P
7439-97-6	Mercury	0.09	U	N*	CV
7440-02-0	Nickel	30.7		E*	P
7440-09-7	Potassium	1600		E	P
7782-49-2	Selenium	0.36	U	N ✓	P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	82.8	B		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	28.1			P
7440-66-6	Zinc	89.6		EN* J	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

SOIL 13-4' DUP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SOIL 13-4' DUP

1412142

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210___

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 68130

Matrix (soil/water): SOIL_ Lab Sam[illegible]

Level (low/med): LOW__ Date Received: 04/25/96

% Solids: _90.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4110			P
7440-36-0	Antimony	7.3		N	P
7440-38-2	Arsenic	149		N*	P
7440-39-3	Barium	62.5			P
7440-41-7	Beryllium	0.35	B	E	P
7440-43-9	Cadmium	0.25	B		P
7440-70-2	Calcium	31200		*	P
7440-47-3	Chromium	6.3		E	P
7440-48-4	Cobalt	7.8			P
7440-50-8	Copper	45.1		EN*	P
7439-89-6	Iron	33600		*	P
7439-92-1	Lead	395		E*	P
7439-95-4	Magnesium	11500		*	P
7439-96-5	Manganese	474		*	P
7439-97-6	Mercury	0.09	U	N*	CV
7440-02-0	Nickel	23.9		E*	P
7440-09-7	Potassium	1050		E	P
7782-49-2	Selenium	0.81		N	P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	48.9	B		P
7440-28-0	Thallium	0.38	U		P
7440-62-2	Vanadium	15.7			P
7440-66-6	Zinc	69.8		EN*	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ____

Comments:

FORM I - IN

ILM[illegible]

U.S. EPA - CLP

SB 16 2-4'

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

SB1624

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 53165_

Matrix (soil/water): SOIL_ Lab Sample ID: 299642

Level (low/med): LOW__ Date Received: 04/27/96

% Solids: 84.7

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9280			P
7440-36-0	Antimony	0.33	B	N	P
7440-38-2	Arsenic	19.9			P
7440-39-3	Barium	39.5			P
7440-41-7	Beryllium	0.56			P
7440-43-9	Cadmium	0.18	B		P
7440-70-2	Calcium	1070			P
7440-47-3	Chromium	13.0		E	P
7440-48-4	Cobalt	9.7			P
7440-50-8	Copper	24.4		E	P
7439-89-6	Iron	27800			P
7439-92-1	Lead	20.1		*	P
7439-95-4	Magnesium	2140			P
7439-96-5	Manganese	439		N	P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	24.3		E	P
7440-09-7	Potassium	1320		E	P
7782-49-2	Selenium	1.0		N	P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	19.0	U		P
7440-28-0	Thallium	0.41	U		P
7440-62-2	Vanadium	26.1			P
7440-66-6	Zinc	91.2		EN	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

U.S. EPA - CLP

1

INCORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B1668

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____

Matrix (soil/water): SOIL_ Lab Sample ID:

Level (low/med): LOW__ Date Received: 04/27/96

% Solids: _84.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4730		*	P
7440-36-0	Antimony	0.29	B	N	P
7440-38-2	Arsenic	9.7			P
7440-39-3	Barium	33.7			P
7440-41-7	Beryllium	0.33		E	P
7440-43-9	Cadmium	0.27			P
7440-70-2	Calcium	22300			P
7440-47-3	Chromium	6.7		*	P
7440-48-4	Cobalt	4.3			P
7440-50-8	Copper	14.4			P
7439-89-6	Iron	14000			P
7439-92-1	Lead	8.4		E	P
7439-95-4	Magnesium	10200		*	P
7439-96-5	Manganese	217			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	14.8		E	P
7440-09-7	Potassium	1050		*	P
7782-49-2	Selenium	0.43		N	P
7440-22-4	Silver	0.20	B		P
7440-23-5	Sodium	74.2	B		P
7440-28-0	Thallium	0.26	U		P
7440-62-2	Vanadium	16.1		*	P
7440-66-6	Zinc	61.3		N*	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN TLM02.1

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

SB 16 6-8'

EPA SAMPLE NO.

SB 16 [illegible]

16

B2268D

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58186_

Matrix (soil/water): SOIL_ Lab Sample ID: 299679

Level (low/med): LOW__ Date Received: 04/27/96

% Solids: _88.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4700		*	P
7440-36-0	Antimony	0.26	B	N	P
7440-38-2	Arsenic	8.5			P
7440-39-3	Barium	34.1			P
7440-41-7	Beryllium	0.32		E	P
7440-43-9	Cadmium	0.27			P
7440-70-2	Calcium	23900			P
7440-47-3	Chromium	7.0		*	P
7440-48-4	Cobalt	5.2			P
7440-50-8	Copper	12.5			P
7439-89-6	Iron	13300			P
7439-92-1	Lead	7.1		E	P
7439-95-4	Magnesium	9960		*	P
7439-96-5	Manganese	228			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	15.2		E	P
7440-09-7	Potassium	1160		*	P
7782-49-2	Selenium	0.25	B	N	P
7440-22-4	Silver	0.10	B		P
7440-23-5	Sodium	42.6	B		P
7440-28-0	Thallium	0.25	U		P
7440-62-2	Vanadium	16.5		*	P
7440-66-6	Zinc	44.9		N*	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

161214

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 13136_

Matrix (soil/water): SOIL_ Lab Sample ID: [illegible]

Level (low/med): LOW__ Date Received: 04/27/96

% Solids: _84.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3140		*	P
7440-36-0	Antimony	0.48	B	N	P
7440-38-2	Arsenic	20.9			P
7440-39-3	Barium	32.0			P
7440-41-7	Beryllium	0.26	B	E	P
7440-43-9	Cadmium	0.43			P
7440-70-2	Calcium	43200			P
7440-47-3	Chromium	5.7		*	P
7440-48-4	Cobalt	4.0			P
7440-50-8	Copper	12.9			P
7439-89-6	Iron	26300			P
7439-92-1	Lead	7.8		E	P
7439-95-4	Magnesium	16100		*	P
7439-96-5	Manganese	399			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	14.8		E	P
7440-09-7	Potassium	915		*	P
7782-49-2	Selenium	0.33		N	P
7440-22-4	Silver	0.09	B		P
7440-23-5	Sodium	72.3	B		P
7440-28-0	Thallium	0.25	U		P
7440-62-2	Vanadium	13.1		*	P
7440-66-6	Zinc	55.3		N*	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

FORM I - IN ILM02.1

000013

U.S. EPA - CLP

1

INCRGANIC ANALYSES DATA SHEET

S316 18-20'

EPA SAMPLE NO.

S316 18-20

161820

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58186_

Matrix (soil/water): SOIL_ Lab Sample ID: 299681

Level (low/med): LOW__ Date Received: 04/27/96

% Solids: _91.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2760		*	P
7440-36-0	Antimony	0.23	B	N	P
7440-38-2	Arsenic	7.7			P
7440-39-3	Barium	32.6			P
7440-41-7	Beryllium	0.22	B	E	P
7440-43-9	Cadmium	0.24	B		P
7440-70-2	Calcium	65600			P
7440-47-3	Chromium	4.6		*	P
7440-48-4	Cobalt	3.1			P
7440-50-8	Copper	9.1			P
7439-89-6	Iron	8940			P
7439-92-1	Lead	5.8		E	P
7439-95-4	Magnesium	20900		*	P
7439-96-5	Manganese	201			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	8.1		E	P
7440-09-7	Potassium	869		*	P
7782-49-2	Selenium	0.17	U	N	P
7440-22-4	Silver	0.07	U		P
7440-23-5	Sodium	70.0	B		P
7440-28-0	Thallium	0.24	U		P
7440-62-2	Vanadium	12.6		*	P
7440-66-6	Zinc	33.4		N*	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

5525 2-4'

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
5525 24

SB2524

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96000_

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 5/883_

Matrix (soil/water): SOIL_ Lab Sample ID: 29/891

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _84.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	10100		* J	P
7440-36-0	Antimony	0.47	B	N J	P
7440-38-2	Arsenic	16.2			P
7440-39-3	Barium	118			P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.20	B		P
7440-70-2	Calcium	1350		E J	P
7440-47-3	Chromium	13.5		* J	P
7440-48-4	Cobalt	10.5			P
7440-50-8	Copper	16.0			P
7439-89-6	Iron	23400		E J	P
7439-92-1	Lead	15.2		EN J	P
7439-95-4	Magnesium	1690		E J	P
7439-96-5	Manganese	1490		E J	P
7439-97-6	Mercury	1.5			CV
7440-02-0	Nickel	20.9		E J	P
7440-09-7	Potassium	1470			P
7782-49-2	Selenium	1.2		N J	P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	50.5	B		P
7440-28-0	Thallium	0.39	U		P
7440-62-2	Vanadium	32.3			P
7440-66-6	Zinc	86.7		E J	P
	Cyanide				NR

Color Before: LT.BROWN_ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

SB 25 6-8'

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

SB25 1,2

SB25168

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96000_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57883_

Matrix (soil/water): SOIL_ Lab Sample ID: 297893

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _88.8

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6710		*	P
7440-36-0	Antimony	0.91	B	N	P
7440-38-2	Arsenic	30.5			P
7440-39-3	Barium	41.1			P
7440-41-7	Beryllium	0.17	B		P
7440-43-9	Cadmium	1.1			P
7440-70-2	Calcium	44500		E	P
7440-47-3	Chromium	10.3		*	P
7440-48-4	Cobalt	7.9			P
7440-50-8	Copper	22.7			P
7439-89-6	Iron	29100		E	P
7439-92-1	Lead	21.1		EN	P
7439-95-4	Magnesium	25300		E	P
7439-96-5	Manganese	835		E	P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	30.6		E	P
7440-09-7	Potassium	1510			P
7782-49-2	Selenium	0.69		N	P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	55.1	B		P
7440-28-0	Thallium	0.38	U		P
7440-62-2	Vanadium	25.1			P
7440-66-6	Zinc	123		E	P
	Cyanide				NR

SEC 6/11/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: YES___

Comments:

STONES_WERE_PRESENT._____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96000

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 33_

Matrix (soil/water): SOIL_ Lab Sample ID: 207895

Level (low/med): LOW__ Date Received: 04/11/96

% Solids: _87.4

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7660		*	P
7440-36-0	Antimony	0.47	B	N	P
7440-38-2	Arsenic	16.5			P
7440-39-3	Barium	73.1			P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	0.90			P
7440-70-2	Calcium	34200		E	P
7440-47-3	Chromium	10.9		*	P
7440-48-4	Cobalt	11.6			P
7440-50-8	Copper	22.9			P
7439-89-6	Iron	23100		E	P
7439-92-1	Lead	11.0		EN	P
7439-95-4	Magnesium	11700		E	P
7439-96-5	Manganese	795		E	P
7439-97-6	Mercury	0.11	U		CV
7440-02-0	Nickel	42.0		E	P
7440-09-7	Potassium	2370			P
7782-49-2	Selenium	0.58		N	P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	35.1	B		P
7440-28-0	Thallium	1.1			P
7440-62-2	Vanadium	27.1			P
7440-66-6	Zinc	91.8		E	P
	Cyanide				NR

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

SB 25 18-20'

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.
SB 25,9 20
251820

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 58015_

Matrix (soil/water): SOIL_ Lab Sample ID: 298695

Level (low/med): LOW__ Date Received: 04/23/96

% Solids: _89.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4350			P
7440-36-0	Antimony	0.35	B	N	P
7440-38-2	Arsenic	10.9		*	P
7440-39-3	Barium	77.0			P
7440-41-7	Beryllium	0.29	B		P
7440-43-9	Cadmium	0.58			P
7440-70-2	Calcium	109000			P
7440-47-3	Chromium	7.3			P
7440-48-4	Cobalt	6.7			P
7440-50-8	Copper	16.5			P
7439-89-6	Iron	18100		E	P
7439-92-1	Lead	44.8		E*	P
7439-95-4	Magnesium	29800		*	P
7439-96-5	Manganese	1500		E*	P
7439-97-6	Mercury	0.04	U		CV
7440-02-0	Nickel	22.8		EN	P
7440-09-7	Potassium	1080			P
7782-49-2	Selenium	0.28	U	N	P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	0.39	U	N	P
7440-62-2	Vanadium	13.1		*	P
7440-66-6	Zinc	64.0		N	P
	Cyanide				NR

SMC 6/19/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B2624

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57936_

Matrix (soil/water): SOIL_ Lab Sample ID:

Level (low/med): LOW__ Date Received: 04/18/96

% Solids: _86.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	7980		*	P
7440-36-0	Antimony	0.56	B	N	P
7440-38-2	Arsenic	74.1		E*	P
7440-39-3	Barium	86.8			P
7440-41-7	Beryllium	0.60		E	P
7440-43-9	Cadmium	0.55			P
7440-70-2	Calcium	1890			P
7440-47-3	Chromium	14.0			P
7440-48-4	Cobalt	9.9			P
7440-50-8	Copper	27.2			P
7439-89-6	Iron	54700		E*	P
7439-92-1	Lead	17.1		E	P
7439-95-4	Magnesium	2510		E	P
7439-96-5	Manganese	356			P
7439-97-6	Mercury	0.07	U		CV
7440-02-0	Nickel	44.4		E	
7440-09-7	Potassium	1650		E	P
7782-49-2	Selenium	1.0		N*	P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	52.2	B		P
7440-28-0	Thallium	0.46	U		P
7440-62-2	Vanadium	28.3			P
7440-66-6	Zinc	97.2		E	P
	Cyanide				NR

SAC 6/5/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ____

Comments:

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U.S. EPA - CLP

5B26 6-8'

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

B26568

SDG 6/18/96

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57936_

Matrix (soil/water): SOIL_ Lab Sample ID: 298233

Level (low/med): LOW__ Date Received: 04/18/96

% Solids: _88.3

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8430		*	P
7440-36-0	Antimony	0.14	B	N *	P
7440-38-2	Arsenic	19.4		E *	P
7440-39-3	Barium	76.6			P
7440-41-7	Beryllium	0.54	B	E	P
7440-43-9	Cadmium	0.63			P
7440-70-2	Calcium	37500			P
7440-47-3	Chromium	11.6			P
7440-48-4	Cobalt	9.0			P
7440-50-8	Copper	26.3			P
7439-89-6	Iron	26600		E *	P
7439-92-1	Lead	17.4		E *	P
7439-95-4	Magnesium	11700		E	P
7439-96-5	Manganese	336			P
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel	27.2		E	P
7440-09-7	Potassium	2230		E	P
7782-49-2	Selenium	0.41	B	N *	P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	86.7	B		P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	30.6			P
7440-66-6	Zinc	119		E	P
	Cyanide				NR

SFC 6/18/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

261214

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210__

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57936_

Matrix (soil/water): SOIL_ Lab Sample ID: 1234

Level (low/med): LOW__ Date Received: 04/18/96

% Solids: _92.2

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4300		*	P
7440-36-0	Antimony	0.41	B	N	P
7440-38-2	Arsenic	12.7		E*	P
7440-39-3	Barium	85.8			P
7440-41-7	Beryllium	0.37	B	E	P
7440-43-9	Cadmium	0.95			P
7440-70-2	Calcium	96100			P
7440-47-3	Chromium	7.2			P
7440-48-4	Cobalt	5.2			P
7440-50-8	Copper	32.1			P
7439-89-6	Iron	30100		E*	P
7439-92-1	Lead	7.7		E	P
7439-95-4	Magnesium	25600		E	P
7439-96-5	Manganese	829			P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	27.4		E	P
7440-09-7	Potassium	1110		E	P
7782-49-2	Selenium	0.34	U	N*	P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	88.9	B		P
7440-28-0	Thallium	0.48	U		P
7440-62-2	Vanadium	20.4			P
7440-66-6	Zinc	127		E	P
	Cyanide				NR

SRS 6/18/96

Color Before: BROWN___ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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U.S. EPA - CLP

SB 26 18-20'

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EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

261820

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57936_

Matrix (soil/water): SOIL_ Lab Sample ID: 298236

Level (low/med): LOW__ Date Received: 04/18/96

% Solids: _94.0

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4410		*	P
7440-36-0	Antimony	0.55	B	N J	P
7440-38-2	Arsenic	24.4		E* J	P
7440-39-3	Barium	190			P
7440-41-7	Beryllium	0.30	B	E	P
7440-43-9	Cadmium	0.71			P
7440-70-2	Calcium	76300			P
7440-47-3	Chromium	10.7			P
7440-48-4	Cobalt	6.1			P
7440-50-8	Copper	18.0			P
7439-89-6	Iron	27600		E* J	P
7439-92-1	Lead	12.1		E J	P
7439-95-4	Magnesium	21400		E	P
7439-96-5	Manganese	419			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	19.0		E	P
7440-09-7	Potassium	1540		E	P
7782-49-2	Selenium	0.33	U	N* J	P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	25.2	B		P
7440-28-0	Thallium	0.46	U		P
7440-62-2	Vanadium	18.7			P
7440-66-6	Zinc	70.3		E	P
	Cyanide				NR

SCC 4/18/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B2724

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210___

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 37936_

Matrix (soil/water): SOIL_ Lab Sample ID: [illegible]

Level (low/med): LOW__ Date Received: 04/17/96

% Solids: _88.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	12900		*	P
7440-36-0	Antimony	0.53	B	N J	P
7440-38-2	Arsenic	17.2		E* J	P
7440-39-3	Barium	41.5			P
7440-41-7	Beryllium	0.62		E	P
7440-43-9	Cadmium	0.08	B	[illegible]	P
7440-70-2	Calcium	7800			P
7440-47-3	Chromium	17.2			P
7440-48-4	Cobalt	7.8			P
7440-50-8	Copper	31.0			P
7439-89-6	Iron	28600		E* J	P
7439-92-1	Lead	13.5		E J	P
7439-95-4	Magnesium	3960		E	P
7439-96-5	Manganese	153			P
7439-97-6	Mercury	0.06	U		CV
7440-02-0	Nickel	26.0		E	P
7440-09-7	Potassium	2140		E	P
7782-49-2	Selenium	0.38	U	N* J	P
7440-22-4	Silver	0.15	U		P
7440-23-5	Sodium	101	B		P
7440-28-0	Thallium	0.55	B		P
7440-62-2	Vanadium	40.4			P
7440-66-6	Zinc	86.4		E	P
_____	Cyanide	_____		_____	NR
_____	_____	_____		_____	

SEC 6/18/96

Color Before: BROWN____ Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

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SB 27 6-8'

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

B2768

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57916_

Matrix (soil/water): SOIL_ Lab Sample ID: 298169

Level (low/med): LOW__ Date Received: 04/17/96

% Solids: _82.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5250			P
7440-36-0	Antimony	0.40	B	W N	P
7440-38-2	Arsenic	26.3			P
7440-39-3	Barium	38.8			P
7440-41-7	Beryllium	0.36	B		P
7440-43-9	Cadmium	0.79			P
7440-70-2	Calcium	37000		* S	P
7440-47-3	Chromium	7.8			P
7440-48-4	Cobalt	8.3			P
7440-50-8	Copper	26.3			P
7439-89-6	Iron	26200			P
7439-92-1	Lead	19.2		E S	P
7439-95-4	Magnesium	19100		* S	P
7439-96-5	Manganese	470			P
7439-97-6	Mercury	0.11	U	N	CV
7440-02-0	Nickel	30.7		*	P
7440-09-7	Potassium	959			P
7782-49-2	Selenium	0.35	U		P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	111	B		P
7440-28-0	Thallium	0.48	U		P
7440-62-2	Vanadium	20.4			P
7440-66-6	Zinc	162			P
	Cyanide				NR

SEC 6/18/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

SB27 12-14'

EPA SAMPLE NO.

B271214

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57236_

Matrix (soil/water): SOIL_ Lab Sample ID: 298173

Level (low/med): LOW__ Date Received: 04/17/96

% Solids: _90.1

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4740		*	P
7440-36-0	Antimony	0.39	B	N J	P
7440-38-2	Arsenic	21.8		E* J	P
7440-39-3	Barium	33.3			P
7440-41-7	Beryllium	0.34	B	E	P
7440-43-9	Cadmium	0.49	B	U	P
7440-70-2	Calcium	78900			P
7440-47-3	Chromium	7.8			P
7440-48-4	Cobalt	6.2			P
7440-50-8	Copper	24.5			P
7439-89-6	Iron	21900		E* J	P
7439-92-1	Lead	13.9		E J	P
7439-95-4	Magnesium	31000		E	P
7439-96-5	Manganese	373			P
7439-97-6	Mercury	0.05	U		CV
7440-02-0	Nickel	18.3		E	P
7440-09-7	Potassium	1290		E	P
7782-49-2	Selenium	0.36	U	N* J	P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	105	B		P
7440-28-0	Thallium	0.50	U		P
7440-62-2	Vanadium	22.0			P
7440-66-6	Zinc	75.6		E	P
	Cyanide				NR

SAC 6/18/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: ____

Comments:

U.S. EPA - CLP

SB 27 18-20

1

EPA SAMPLE NO.

INORGANIC ANALYSES DATA SHEET

B271820

Lab Name: INCHCAPE_ENVIRONMENTAL___ Contract: 96210_____

Lab Code: INCHVT Case No.: 96210_ SAS No.: _____ SDG No.: 57936_

Matrix (soil/water): SOIL_ Lab Sample ID: 298171

Level (low/med): LOW__ Date Received: 04/17/96

% Solids: _86.9

Concentration Units (ug/L or mg/kg dry weight): MG/KG

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5690		*	P
7440-36-0	Antimony	0.58	B	N	P
7440-38-2	Arsenic	26.1		E*	P
7440-39-3	Barium	90.0			P
7440-41-7	Beryllium	0.41	B	E	P
7440-43-9	Cadmium	0.88			P
7440-70-2	Calcium	26100			P
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt	38.5			P
7440-50-8	Copper	23.9			P
7439-89-6	Iron	32500		E*	P
7439-92-1	Lead	38.8		E	P
7439-95-4	Magnesium	11400		E	P
7439-96-5	Manganese	1700			P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	49.8		E	P
7440-09-7	Potassium	1330		E	P
7782-49-2	Selenium	0.39	B	N*	P
7440-22-4	Silver	0.14	U		P
7440-23-5	Sodium	85.9	B		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	20.9			P
7440-66-6	Zinc	89.7		E	P
	Cyanide				NR

SRC 6/18/96

Color Before: BROWN____ Clarity Before: _____ Texture: COARSE

Color After: YELLOW___ Clarity After: CLEAR_ Artifacts: _____

Comments:

APPENDIX B
DETAILED
RISK/HAZARD CALCULATIONS

DERMAL CONTACT WITH CHEMICALS IN SOIL – HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER SHORT TERM RISK

ANALYTE	CS (MG/KG)	CF (KG/MG)	SA (CM2/EVENT)	AF (MG/CM2)	ABS (UNITLESS)	EF (DAY/YR)	ED (YR)	BW (KG)	AT (DAYS)	DAILY INTAKE (DI) (MG/KG/DAY)	CSF (MG/KG/DAY)-1	RISK
1,1,1-Trichloroethane	1.7E+00	1.0E-06	3200	1.00	0.25	30	1	70	25550	2.28E-08	NA	ND
1,1,2-Trichloroethane	1.2E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	1.61E-10	5.70E-02	9.18E-12
1,1-Dichloroethane	1.1E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	1.48E-10	NA	ND
1,1-Dichloroethene	7.0E-03	1.0E-06	3200	1.00	0.25	30	1	70	25550	9.39E-11	7.50E-01	7.05E-11
1,2-Dichloroethene (cis)	4.6E+00	1.0E-06	3200	1.00	0.25	30	1	70	25550	6.17E-08	NA	ND
1,2-Dichloroethene (trans)	2.1E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	2.82E-10	NA	ND
1,2-Dichloroethene (total)	4.8E+00	1.0E-06	3200	1.00	0.25	30	1	70	25550	6.44E-08	NA	ND
2-Butanone	1.4E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	1.88E-10	NA	ND
Acetone	8.4E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	1.13E-09	NA	ND
Benzene	1.4E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	1.88E-10	3.22E-02	6.05E-12
Carbon Disulfide	7.0E-01	1.0E-06	3200	1.00	0.25	30	1	70	25550	9.39E-09	NA	ND
Chlorobenzene	2.7E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	3.62E-10	NA	ND
Chloroform	2.0E-03	1.0E-06	3200	1.00	0.25	30	1	70	25550	2.68E-11	6.42E-03	1.72E-13
Ethylbenzene	3.6E+00	1.0E-06	3200	1.00	0.25	30	1	70	25550	4.83E-08	NA	ND
Methylene Chloride	2.0E-03	1.0E-06	3200	1.00	0.25	30	1	70	25550	2.68E-11	9.37E-03	2.52E-13
Tetrachloroethene	1.8E+01	1.0E-06	3200	1.00	0.25	30	1	70	25550	2.42E-07	5.20E-02	1.26E-08
Toluene	3.4E-01	1.0E-06	3200	1.00	0.25	30	1	70	25550	4.56E-09	NA	ND
Trichloroethene	1.1E+01	1.0E-06	3200	1.00	0.25	30	1	70	25550	1.48E-07	1.10E-02	1.62E-09
Vinyl Chloride	3.0E-02	1.0E-06	3200	1.00	0.25	30	1	70	25550	4.03E-10	2.37E+00	9.56E-10
Xylenes (total)	4.4E+01	1.0E-06	3200	1.00	0.25	30	1	70	25550	5.90E-07	NA	ND

TOTAL RISK **1.52E-08**

DERMAL CONTACT WITH CHEMICALS IN SOIL – HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER SHORT TERM HAZARD

ANALYTE	CS (MG/KG)	CF (KG/MG)	SA (CM2/EVENT)	AF (MG/CM2)	ABS (UNITLESS)	EF (DAY/YR)	ED (YR)	BW (KG)	AT (DAYS)	DAILY INTAKE (DI) (MG/KG/DAY)	RfD (MG/KG/DAY)	HAZARD
1,1,1-Trichloroethane	1.7E+00	1.0E-06	3200	1.00	0.25	30	1	70	365	1.60E-08	NA	ND
1,1,2-Trichloroethane	1.2E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	1.13E-08	4.00E-02	2.82E-07
1,1-Dichloroethane	1.1E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	1.03E-08	1.00E+00	1.03E-08
1,1-Dichloroethene	7.00E-03	1.0E-06	3200	1.00	0.25	30	1	70	365	6.58E-09	7.20E-03	9.13E-07
1,2-Dichloroethene (cis)	4.60E+00	1.0E-06	3200	1.00	0.25	30	1	70	365	4.32E-06	9.00E-02	4.80E-05
1,2-Dichloroethene (trans)	2.10E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	1.97E-08	1.80E-01	1.10E-07
1,2-Dichloroethene (total)	4.80E+00	1.0E-06	3200	1.00	0.25	30	1	70	365	4.51E-06	8.10E-03	5.57E-04
2-Butanone	1.40E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	1.32E-08	1.60E+00	8.22E-09
Acetone	8.40E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	7.89E-08	1.00E+00	7.89E-08
Benzene	1.40E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	1.32E-08	NA	ND
Carbon Disulfide	7.00E-01	1.0E-06	3200	1.00	0.25	30	1	70	365	6.58E-07	8.00E-02	8.22E-06
Chlorobenzene	2.70E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	2.54E-08	NA	ND
Chloroform	2.00E-03	1.0E-06	3200	1.00	0.25	30	1	70	365	1.88E-09	9.50E-03	1.98E-07
Ethylbenzene	3.60E+00	1.0E-06	3200	1.00	0.25	30	1	70	365	3.38E-06	8.00E-02	4.23E-05
Methylene Chloride	2.00E-03	1.0E-06	3200	1.00	0.25	30	1	70	365	1.88E-09	4.80E-02	3.91E-08
Tetrachloroethene	1.80E+01	1.0E-06	3200	1.00	0.25	30	1	70	365	1.69E-05	1.00E-01	1.69E-04
Toluene	3.40E-01	1.0E-06	3200	1.00	0.25	30	1	70	365	3.19E-07	2.00E+00	1.60E-07
Trichloroethene	1.10E+01	1.0E-06	3200	1.00	0.25	30	1	70	365	1.03E-05	NA	ND
Vinyl Chloride	3.00E-02	1.0E-06	3200	1.00	0.25	30	1	70	365	2.82E-08	NA	ND
Xylenes (total)	4.40E+01	1.0E-06	3200	1.00	0.25	30	1	70	365	4.13E-05	NA	ND

NA/ND – Not available / Not determined

TOTAL HAZARD 8.26E-04

INGESTION OF CHEMICALS IN SOIL – HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER SHORT TERM RISK

ANALYTE	CS (MG/KG)	IR (MG/DAY)	CF (KG/MG)	FI (UNITLESS)	EF (DAY/YR)	ED (YR)	BW (KG)	AT (DAYS)	DAILY INTAKE (DI) (MG/KG/DAY)	CSF (MG/KG/DAY)-1	RISK
1,1,1-Trichloroethane	1.7E+00	480	1.0E-06	1.0	30	1	70	25550	1.37E-08	NA	ND
1,1,2-Trichloroethane	1.2E-02	480	1.0E-06	1.0	30	1	70	25550	9.66E-11	5.70E-02	5.51E-12
1,1-Dichloroethane	1.1E-02	480	1.0E-06	1.0	30	1	70	25550	8.86E-11	NA	ND
1,1-Dichloroethene	7.0E-03	480	1.0E-06	1.0	30	1	70	25550	5.64E-11	6.00E-01	3.38E-11
1,2-Dichloroethene (cis)	4.6E+00	480	1.0E-06	1.0	30	1	70	25550	3.70E-08	NA	ND
1,2-Dichloroethene (trans)	2.1E-02	480	1.0E-06	1.0	30	1	70	25550	1.69E-10	NA	ND
1,2-Dichloroethene (total)	4.8E+00	480	1.0E-06	1.0	30	1	70	25550	3.86E-08	NA	ND
2-Butanone	1.4E-02	480	1.0E-06	1.0	30	1	70	25550	1.13E-10	NA	ND
Acetone	8.4E-02	480	1.0E-06	1.0	30	1	70	25550	6.76E-10	NA	ND
Benzene	1.4E-02	480	1.0E-06	1.0	30	1	70	25550	1.13E-10	2.90E-02	3.27E-12
Carbon Disulfide	7.0E-01	480	1.0E-06	1.0	30	1	70	25550	5.64E-09	NA	ND
Chlorobenzene	2.7E-02	480	1.0E-06	1.0	30	1	70	25550	2.17E-10	NA	ND
Chloroform	2.0E-03	480	1.0E-06	1.0	30	1	70	25550	1.61E-11	6.10E-03	9.82E-14
Ethylbenzene	3.6E+00	480	1.0E-06	1.0	30	1	70	25550	2.90E-08	NA	ND
Methylene Chloride	2.0E-03	480	1.0E-06	1.0	30	1	70	25550	1.61E-11	7.50E-03	1.21E-13
Tetrachloroethene	1.8E+01	480	1.0E-06	1.0	30	1	70	25550	1.45E-07	5.20E-02	7.54E-09
Toluene	3.4E-01	480	1.0E-06	1.0	30	1	70	25550	2.74E-09	NA	ND
Trichloroethene	1.1E+01	480	1.0E-06	1.0	30	1	70	25550	8.86E-08	1.10E-02	9.74E-10
Vinyl Chloride	3.0E-02	480	1.0E-06	1.0	30	1	70	25550	2.42E-10	1.90E+00	4.59E-10
Xylenes (total)	4.4E+01	480	1.0E-06	1.0	30	1	70	25550	3.54E-07	NA	ND

TOTAL RISK 9.01E-09

INGESTION OF CHEMICALS IN SOIL – HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER SHORT TERM HAZARD

ANALYTE	CS (MG/KG)	IR (MG/DAY)	CF (KG/MG)	FI (UNITLESS)	EF (DAY/YR)	ED (YR)	BW (KG)	AT (DAYS)	DAILY INTAKE (DI) (MG/KG/DAY)	RfD (MG/KG/DAY)	HAZARD
1,1,1-Trichloroethane	1.7E+00	480	1.0E-06	1.0	30	1	70	365	9.58E-07	9.00E-02	1.06E-05
1,1,2-Trichloroethane	1.2E-02	480	1.0E-06	1.0	30	1	70	365	6.76E-09	4.00E-02	1.69E-07
1,1-Dichloroethane	1.1E-02	480	1.0E-06	1.0	30	1	70	365	6.20E-09	1.00E+00	6.20E-09
1,1-Dichloroethene	7.0E-03	480	1.0E-06	1.0	30	1	70	365	3.95E-09	9.00E-03	4.38E-07
1,2-Dichloroethene (cis)	4.6E+00	480	1.0E-06	1.0	30	1	70	365	2.59E-06	1.00E-01	2.59E-05
1,2-Dichloroethene (trans)	2.1E-02	480	1.0E-06	1.0	30	1	70	365	1.18E-08	2.00E-01	5.92E-08
1,2-Dichloroethene (total)	4.8E+00	480	1.0E-06	1.0	30	1	70	365	2.71E-06	9.00E-03	3.01E-04
2-Butanone	1.4E-02	480	1.0E-06	1.0	30	1	70	365	7.89E-09	2.00E+00	3.95E-09
Acetone	8.4E-02	480	1.0E-06	1.0	30	1	70	365	4.73E-08	1.00E+00	4.73E-08
Benzene	1.4E-02	480	1.0E-06	1.0	30	1	70	365	7.89E-09 NA	ND	
Carbon Disulfide	7.0E-01	480	1.0E-06	1.0	30	1	70	365	3.95E-07	1.00E-01	3.95E-06
Chlorobenzene	2.7E-02	480	1.0E-06	1.0	30	1	70	365	1.52E-08 NA	ND	
Chloroform	2.0E-03	480	1.0E-06	1.0	30	1	70	365	1.13E-09	1.00E-02	1.13E-07
Ethylbenzene	3.60E+00	480	1.0E-06	1.0	30	1	70	365	2.03E-06	1.00E-01	2.03E-05
Methylene Chloride	2.00E-03	480	1.0E-06	1.0	30	1	70	365	1.13E-09	6.00E-02	1.88E-08
Tetrachloroethene	1.80E+01	480	1.0E-06	1.0	30	1	70	365	1.01E-05	1.00E-01	1.01E-04
Toluene	3.40E-01	480	1.0E-06	1.0	30	1	70	365	1.92E-07	2.00E+00	9.58E-08
Trichloroethene	1.10E+01	480	1.0E-06	1.0	30	1	70	365	6.20E-06 NA	ND	
Vinyl Chloride	3.00E-02	480	1.0E-06	1.0	30	1	70	365	1.69E-08 NA	ND	
Xylenes (total)	4.40E+01	480	1.0E-06	1.0	30	1	70	365	2.48E-05 NA	ND	

NA/ND -- Not available/ Not determined

TOTAL HAZARD 4.64E-04

INHALATION OF FUGITIVE DUSTS FROM SOIL – HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER SHORT TERM RISK

ANALYTE	CA (MG/M3)	IR (M3/HR)	ET (HR/DAY)	EF (DAY/YR)	ED (YR)	BW (KG)	AT (DAYS)	DAILY INTAKE (DI) (MG/KG/DAY)	CSF (MG/KG/DAY)-1	RISK
1,1,1-Trichloroethane	4.26E-03	0.83	8	30	1	70	25550	4.75E-07 NA		ND
1,1,2-Trichloroethane	6.12E-06	0.83	8	30	1	70	25550	6.81E-10	5.70E-02	3.88E-11
1,1-Dichloroethane	1.28E-04	0.83	8	30	1	70	25550	1.43E-08 NA		ND
1,1-Dichloroethene	8.72E-05	0.83	8	30	1	70	25550	9.71E-09	1.20E+00	1.16E-08
1,2-Dichloroethene (cis)	3.01E-02	0.83	8	30	1	70	25550	3.35E-06 NA		ND
1,2-Dichloroethene (trans)	1.37E-04	0.83	8	30	1	70	25550	1.53E-08 NA		ND
1,2-Dichloroethene (total)	1.90E-02	0.83	8	30	1	70	25550	2.11E-06 NA		ND
2-Butanone	1.95E-09	0.83	8	30	1	70	25550	2.17E-13 NA		ND
Acetone	3.55E-08	0.83	8	30	1	70	25550	3.96E-12 NA		ND
Benzene	2.02E-09	0.83	8	30	1	70	25550	2.25E-13	2.90E-02	6.52E-15
Carbon Disulfide	3.82E-07	0.83	8	30	1	70	25550	4.25E-11 NA		ND
Chlorobenzene	4.71E-10	0.83	8	30	1	70	25550	5.25E-14 NA		ND
Chloroform	9.64E-10	0.83	8	30	1	70	25550	1.07E-13	8.10E-02	8.70E-15
Ethylbenzene	5.79E-08	0.83	8	30	1	70	25550	6.45E-12 NA		ND
Methylene Chloride	1.71E-09	0.83	8	30	1	70	25550	1.90E-13	1.60E-03	3.04E-16
Tetrachloroethene	6.89E-07	0.83	8	30	1	70	25550	7.67E-11	2.00E-03	1.53E-13
Toluene	1.59E-08	0.83	8	30	1	70	25550	1.77E-12 NA		ND
Trichloroethene	1.93E-06	0.83	8	30	1	70	25550	2.15E-10	6.00E-03	1.29E-12
Vinyl Chloride	1.20E-07	0.83	8	30	1	70	25550	1.34E-11	3.00E-01	4.02E-12
Xylenes (total)	7.32E-07	0.83	8	30	1	70	25550	8.16E-11 NA		ND
								TOTAL RISK		1.17E-08

INHALATION OF FUGITIVE DUSTS FROM SOIL – HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER SHORT TERM HAZARD

ANALYTE	CA (MG/M3)	IR (M3/HR)	ET (HR/DAY)	EF (DAY/YR)	ED (YR)	BW (KG)	AT (DAYS)	DAILY INTAKE (DI) (MG/KG/DAY)	RfD (MG/KG/DAY)	HAZARD
1,1,1-Trichloroethane	4.26E-03	0.83	8	30	1	70	365	3.32E-05	2.86E-01	1.16E-04
1,1,2-Trichloroethane	6.12E-06	0.83	8	30	1	70	365	4.77E-08 NA	ND	
1,1-Dichloroethane	1.28E-04	0.83	8	30	1	70	365	1.00E-06	1.43E+00	7.00E-07
1,1-Dichloroethene	8.72E-05	0.83	8	30	1	70	365	6.80E-07 NA	ND	
1,2-Dichloroethene (cis)	3.01E-02	0.83	8	30	1	70	365	2.35E-04 NA	ND	
1,2-Dichloroethene (trans)	1.37E-04	0.83	8	30	1	70	365	1.07E-06 NA	ND	
1,2-Dichloroethene (total)	1.90E-02	0.83	8	30	1	70	365	1.48E-04 NA	ND	
2-Butanone	1.95E-09	0.83	8	30	1	70	365	1.52E-11	2.86E-01	5.31E-11
Acetone	3.55E-08	0.83	8	30	1	70	365	2.77E-10 NA	ND	
Benzene	2.02E-09	0.83	8	30	1	70	365	1.57E-11	1.71E-02	9.21E-10
Carbon Disulfide	3.82E-07	0.83	8	30	1	70	365	2.98E-09	3.00E-03	9.93E-07
Chlorobenzene	4.71E-10	0.83	8	30	1	70	365	3.67E-12 NA	ND	
Chloroform	9.64E-10	0.83	8	30	1	70	365	7.51E-12 NA	ND	
Ethylbenzene	5.79E-08	0.83	8	30	1	70	365	4.51E-10	2.90E-01	1.56E-09
Methylene Chloride	1.71E-09	0.83	8	30	1	70	365	1.33E-11	8.57E-01	1.55E-11
Tetrachloroethene	6.89E-07	0.83	8	30	1	70	365	5.37E-09 NA	ND	
Toluene	1.59E-08	0.83	8	30	1	70	365	1.24E-10 NA	ND	
Trichloroethene	1.93E-06	0.83	8	30	1	70	365	1.51E-08 NA	ND	
Vinyl Chloride	1.20E-07	0.83	8	30	1	70	365	9.37E-10 NA	ND	
Xylenes (total)	7.32E-07	0.83	8	30	1	70	365	5.71E-09 NA	ND	

NA/ND – Not available/ Not determined

TOTAL HAZARD **1.16E-04**

Pumping Report). Results, so far, show the extraction rates (160 gal/min from EW-1, and 75 gal/min from EW-2) are effective in maintaining the barrier and removing the contaminants. Both wells are highly efficient and could be pumped at much higher rates if needed. The pumping tests showed this aquifer to be extensive and highly transmissive. Although the supply wells require cleaning and iron removal from time to time, water levels in the aquifer recover quickly when the wells are shut down and there is no evidence of over-pumping.

2.4 ANALYTICAL DATA

2.4.1 Groundwater Data

The groundwater data collected during the course of the Removal Action are summarized above. The data collected by the PRP Group are included for reference in Appendix A.

2.4.2 Soil Data

The soil data collected during the course of the Removal Action are summarized above. The data collected by the PRP Group are included for reference in Appendix A.

2.5 STREAMLINED RISK EVALUATION

2.5.1 Introduction to the Risk Evaluation

A streamlined risk evaluation was conducted for the soils at the GSS. Site data collected in accordance with the *Design Technical Memorandum* (1995), *Groundwater Monitoring Program Plan* (1995), and the *Quality Assurance Project Plan* (1995) which were subsequently reported in the *Soil Data Summary Report* (1996) and the *Groundwater Monitoring Well Installation Report* (1996), were used in this risk evaluation. Chemicals of concern were identified first in the *Design Technical Memorandum* and again below, based on previous investigations. The streamlined risk evaluation provides an estimate of how, and to what extent, people might be exposed to the chemicals of concern and assesses the potential health effects if no action is taken on the Site soils at the GSS.

The AOC orders the PRP Group to:

> *"Treat soils at the Site to levels which will assure protection of human health and the environment, to levels which will attain all risk-based standards and federal and state ARARs, and to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."* (Section V.2.g).

This section of the report is separated into seven parts including this introduction. The future use of this property and the potential pathways for exposure based on this future use are described in Section 4.2 - Future Property Use. As a means to evaluate the effect that the Site soils will have on the groundwater beneath the Site, the PRP Group developed a groundwater flow and contaminant fate and transport model. This model and its results were provided to the U.S.EPA in the *Groundwater Flow and Contaminant Fate and Transport Report* (1996) and summarized in Section 2.5.3. The chemicals of concern are identified and discussed in Section 2.5.4. Based on these chemicals and the potential exposure pathways, chemical exposure modeling was conducted and the results discussed in Section 2.5.5. The potential exposure to the chemicals of concern is compared to U.S. EPA standards. This comparison is provided in Section 2.5.6. Section 2.5.7 is a summary of the streamlined risk evaluation and establishes treatment goals for the Site soils.

2.5.2 Future Property Use

The Granville Solvents Inc. property located at 300 Palmer Lane in Granville, Licking County, Ohio operated as a petroleum bulk storage, distribution, and recycling facility and later as a solvent recycling and reclamation facility at this location for over 30 years. This long history of industrial use for this property is well established and it is still owned by Granville Solvents, Inc. At the present time, a locked twelve-foot high fence with three-strand barbed wire has been placed around the Site and area of impacted soil as ordered by the AOC (*Site Security Plan* (M&E, 1994).

Even under these secure conditions, there is the potential that there will be a time when it may be necessary to cross this Site with an underground utility, such as a sewer or electric line. In such a case, an excavation worker may be required to excavate soil to a given depth and install equipment below grade. There is the potential that this worker will be exposed for a short duration to the chemicals

present in the Site soils. Under no other circumstances that can be conceived under current or future Site control could a person or persons be exposed to subsurface Site soils.

2.5.3 Results of the Fate and Transport Modeling

A *Groundwater Flow and Contaminant Fate and Transport Model Report* was submitted to the U.S. EPA on December 20, 1996. The model was developed as a means to predict the impact of the Site soils on the groundwater beneath the Site and to aid in the evaluation of options for the remediation of impacted soils. The model was used to evaluate four general alternatives: no action, maintenance pumping, soil remediation to 1,000 μg/kg, and soil remediation to 5,000 μg/kg total VOCs.

The conclusion drawn from the model results indicate that the no action alternative would allow compounds presently in the Site soils to migrate into the wellfield at concentrations above the no further action levels. Maintenance pumping involves the use of GSS-EW2 at relatively high flow rates for a period of 5 years and a reduced rate for a period of 15 years. The evaluation of this modeled alternative concluded that over time the groundwater concentration would be reduced to concentrations below the no further action levels. The model results are relatively sensitive to the potential for higher concentrations or non-aqueous phase liquids which might require longer-term pumping.

The model was used to simulate the removal of contaminants that exceed concentrations of 1,000 μg/kg. The results of the model simulation were interpreted to indicate that the groundwater concentrations would not exceed the no further action levels. Because the soil contaminants exceeding a concentration of 1,000 μg/kg were removed, the potential effects that might be caused by unknown higher concentrations or non-aqueous phase liquids are minimized.

The model was also used to simulate the removal of contaminants that exceed concentrations above 5,000 μg/kg and 10,000 μg/kg. For 10,000 μg/kg, the interpretation of the model results is that a sufficient amount of the chemicals remaining would leach to the groundwater, causing concentrations in groundwater exceeding those required by the AOC. In contrast, the interpretation of the model results for the removal of soil contaminants above a concentration of 5,000 μg/kg is that it will have essentially the same effect as the removal of soil contaminants with concentrations above 1,000 μg/kg.

The conclusion drawn for the modeling effort is that the removal of soil contaminants to concentrations 5,000 μg/kg or less will meet the requirements of the Administrative Order to "Treat soils, ...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." (Section V.2.g).

2.5.4 Chemicals of Potential Concern for the Soil Removal Action

Previous investigations identified the compounds in Tables 2-2 and 2-9. Chemicals of potential concern were identified and reported in the December 8, 1995, *Design Technical Memorandum* (1995).

Consistent with the sampling plan specified in the *Design Technical Memorandum*, soil samples were collected and analyzed for VOCs, SVOCs, and RCRA metals. Results were provided to the U.S. EPA in the *Soil Data Report* (1996). Three SVOCs were detected, two in one sample (SB-5, fluoranthene and pyrene), and one in SB-26 (diethylphthalate). These compounds occurred only in these locations and are of no direct consequence to this risk evaluation.

In April of 1996, M&E performed an extensive soil investigation of the GSS area. For the purposes of this streamlined risk evaluation, chemicals of concern for inclusion in the risk evaluation were selected based on the criterion of a single occurrence of a VOC above detection limits in the soil sampling results of the April 1996 soil sampling event. The chemicals of concern are listed in Table 2-9.

TABLE 2-9
CHEMICALS OF CONCERN FOR THE GRANVILLE SOLVENTS SITE

1,1,1-Trichloroethane	Carbon disulfide
1,1,2-Trichloroethane	Chlorobenzene
1,1-Dichloroethane	Chloroform
1,1-Dichloroethene	Ethylbenzene
1,2-Dichloroethene (cis)	Methylene chloride
1,2-Dichloroethene (trans)	Tetrachloroethene
1,2-Dichloroethene (mixture)	Toluene
2-Butanone	Trichloroethene
Acetone	Vinyl chloride
Benzene	Xylenes

2.5.5 Chemical Exposure Modeling

The chemical exposure concentration is the concentration of a chemical in soil that will be contacted by a receptor. The exposure concentration typically utilizes an average of the concentration that could be contacted over an exposure period. However, to provide a conservative approach of estimating exposures in this streamlined risk evaluation, exposure concentrations are based on the maximum concentration of each parameter detected in soil. Ambient air concentrations were derived from maximum soil concentrations of the components based on the predictive modeling techniques of Baker and MacKay (1985, U.S. EPA, 1989), U.S. EPA Superfund Exposure Assessment Manual (U.S. EPA 1988), and Gifford & Hanna (1970), and Tennekes (1976). Given that the maximum concentrations detected were generally from samples collected below a depth of six feet, these ambient air concentrations are, again, conservative.

It should be noted that estimates of exposure concentrations for soil assume that concentrations will remain constant over the duration of exposure. This assumption also is conservative, given that environmental fate processes such as dilution, attenuation, hydrolysis, volatilization, and biodegradation are expected to cause concentrations to decrease over time. Constituent concentrations may remain constant or decrease, but it is unlikely that they will increase. The constituent concentrations utilized in the exposure evaluation are presented in Table 2-10. These concentrations represent the maximum concentrations detected in the entire depth of soils which were evaluated.

2.5.6 Risk Characterization

The risk characterization serves to provide a comparison of the exposure concentrations estimated and applicable toxicological or dose-response data developed for the chemicals of concern. The outcome of this comparison is used to determine whether the chemical concentrations detected in soil at GSS may be associated with adverse effects on the health of excavation workers potentially exposed to site-related chemicals. Adverse health effects are defined as carcinogenic risk (i.e., cancer) or noncarcinogenic hazard (i.e., kidney disease).

Information relevant to the carcinogenic and/or noncarcinogenic potential of the chemicals of concern is derived from laboratory research studies. U.S. EPA evaluates chemical-specific toxicity data to derive appropriate toxicity criteria or guidelines for the protection of human health. Carcinogenic and

TABLE 2-10
SUMMARY OF EXPOSURE CONCENTRATIONS

	Soil Maximum Concentration (a) (mg/kg)	Modeled Ambient Air Concentration (b) (mg/m^3)
1,1,1-trichloroethane	1.7	0.00426
1,1,2-Trichloroethane	0.012	0.000006
1,1-Dichloroethane	0.011	0.00013
1,1-Dichloroethene	0.007	0.00009
1,2-Dichloroethene (cis)	4.6	0.03
1,2-Dichloroethene (trans)	0.021	0.00014
1,2-Dichloroethene (total)	4.8	0.02
2-Butanone	0.014	2E-9
acetone	0.084	4E-8
benzene	0.014	2E-9
carbon disulfide	0.7	4E-7
chlorobenzene	0.027	5E-10
chloroform	0.002	1E-9
ethylbenzene	3.6	6E-8
methylene chloride	0.002	2E-9
tetrachloroethene	18	7e-7
toluene	0.34	2E-8
trichloroethene	11	2e-6
vinyl chloride	0.03	1E-7
xylenes (total)	44	7E-7

(a) Maximum soil concentrations based on analytical results provided in the Soil Data Report (M&E, December 20, 1996).

(b) Ambient air concentrations based on predictive techniques of Baker and MacKay (1985, U.S. EPA, 1989), U.S. EPA Superfund Exposure Assessment Manual (U.S. EPA 1988), and Gifford & Hanna (1970), and Tennekes (1976).

noncarcinogenic toxicity factors which have been derived for the chemicals of concern are provided in Table 2-11. Noncarcinogenic toxicity values are referred to as reference doses (RfD). Reference doses are levels of chemicals which are expected to be without adverse health consequences based on daily intake by a specified route of exposure. Carcinogenic toxicity values are referred to as cancer slope factors (CSF). The slope factor is an upper bound estimate of the dose-response curve for developing cancer per dose of chemical.

This risk characterization estimates the carcinogenic risks and the noncarcinogenic hazards which may be associated with the doses of chemicals experienced by an excavation worker. The excavation worker is assumed to be involved in trenching activities on the GSS property for installation of some type of utility line, such as a sewer. Subsurface soils (greater than 4 feet) may be brought to the surface during digging and excavating for building foundations or utilities. Therefore, the excavation worker is assumed to have potential exposure to the full soil column (0 to 20 feet). However, the excavation worker is not likely to have extensive direct contact with soils, but would rely on the use of heavy machinery such as backhoes.

2.5.6.1 Evaluation of Non-Carcinogenic Hazards

The potential noncarcinogenic hazards were assessed quantitatively by evaluating exposure estimates with respect to available toxicity values (Table 2-11) for the chemicals of concern. For the excavation worker, the on-site work activities are assumed to occur 30 days per year, during which time the worker is on-site for eight hours per day. The excavation worker is also assumed to have a daily ingestion rate of 480 mg/kg. In addition, it is assumed that dermal exposure occurs at the head, hands, and arms, so that the skin surface area exposed is 3,200 cm^2. An adherence factor of 1.0 is used in conjunction with a default skin absorption factor of 25 percent. Furthermore, it is assumed that the excavation worker would not be physically handling the soil but would rely on bulldozers or backhoes, so that the inhalation rate of 0.83 m^3/hr for moderate activity is appropriately utilized for the inhalation exposure. For non-carcinogenic effects, exposure is averaged over the product of the exposure duration (in years) times 365 days per year. The exposure duration is the period of time over which the event may occur. Therefore, an exposure duration of one year is assumed for evaluating noncarcinogenic effects of the excavation worker. The length of time that the excavation worker may be in contact with soils is considered to be a short term, or subchronic exposure as opposed to a long-term, or chronic (greater than 7 years) exposure.

TABLE 2-11 TOXICITY VALUES FOR CHEMICALS OF POTENTIAL CONCERN AT GSS

	TOXICITY INFORMATION*									
	NONCARCINOGENIC RfDs						CANCER SLOPE FACTORS			
	ORAL RfD (mg/kg/day)		ADJUSTED ORAL (DERMAL) RfD (b) (mg/kg/day)		INHALATION RfD (mg/kg/day)		ORAL SLOPE FACTOR (mg/kg/day)-1	ADJUSTED ORAL (DERMAL) SLOPE FACTOR (a) (mg/kg/day)-1	INHALATION SLOPE FACTOR (mg/kg/day)-1	Oral Absorption Factor (c)
CHEMICAL	SUBCHRONIC	CHRONIC	SUBCHRONIC	CHRONIC	SUBCHRONIC	CHRONIC				(UNITLESS)
1,1,1-Trichloroethane	9.0E-02	NA	NA	NA	2.9E-01	2.9E-01	NA	NA	NA	1.0E+00
1,1,2-Trichloroethane	4.0E-02	4.0E-03	4.0E-02	4.0E-03	NA	NA	5.7E-02	5.7E-02	5.7E-02	1.0E+00
1,1-Dichloroethane	1.0E+00	1.0E-01	1.0E+00	1.0E-01	1.4E+00	1.4E-01	NA	NA	NA	1.0E+00
1,1-Dichloroethene	9.0E-03	9.0E-03	7.2E-03	7.2E-03	NA	NA	6.0E-01	7.5E-01	1.2E+00	8.0E-01
1,2-Dichloroethene (cis)	1.0E-01	1.0E-02	9.0E-02	9.0E-03	NA	NA	NA	NA	NA	9.0E-01
1,2-Dichloroethene (trans)	2.0E-01	2.0E-02	1.8E-01	1.8E-02	NA	NA	NA	NA	NA	9.0E-01
1,2-Dichloroethene (mixture)	9.0E-03	9.0E-03	8.1E-03	8.1E-03	NA	NA	NA	NA	NA	9.0E-01
2-Butanone	2.0E+00	6.0E-01	1.6E+00	4.8E-01	2.9E-01	2.9E-01	NA	NA	NA	8.0E-01
Acetone	1.0E+00	1.0E-01	1.0E+00	1.0E-01	NA	NA	NA	NA	NA	1.0E+00
Benzene	NA	3.0E-04	NA	2.7E-04	1.7E-02	1.7E-03	2.9E-02	3.2E-02	2.9E-02	9.0E-01
Carbon disulfide	1.0E-01	1.0E-01	8.0E-02	8.0E-02	3.0E-03	2.0E-01	NA	NA	NA	8.0E-01
Chlorobenzene	NA	2.0E-02	NA	1.6E-02	NA	5.0E-03	NA	NA	NA	8.0E-01
Chloroform	1.0E-02	1.0E-02	9.5E-03	9.5E-03	NA	NA	6.1E-03	6.4E-03	8.1E-02	9.5E-01
Ethylbenzene	1.0E-01	1.0E-01	8.0E-02	8.0E-02	2.9E-01	2.9E-01	NA	NA	NA	8.0E-01
Methylene chloride	6.0E-02	6.0E-02	4.8E-02	4.8E-02	8.6E-01	8.6E-01	7.5E-03	9.4E-03	1.6E-03	8.0E-01
Tetrachloroethene	1.0E-01	1.0E-02	1.0E-01	1.0E-02	NA	NA	5.2E-02	5.2E-02	2.0E-03	1.0E+00
Toluene	2.0E+00	2.0E-01	2.0E+00	2.0E-01	NA	1.1E-01	NA	NA	NA	1.0E+00
Trichloroethene	NA	6.0E-03	NA	6.0E-03	NA	NA	1.1E-02	1.1E-02	6.0E-03	1.0E+00
Vinyl chloride	NA	NA	NA	NA	NA	NA	1.9E+00	2.4E+00	3.0E-01	8.0E-01
Xylenes	NA	2.0E+00	NA	1.8E+00	NA	8.6E-02	NA	NA	NA	9.0E-01

NA - Toxicity values (RfD/CSF) not available from IRIS, HEAST, scientific literature, USEPA nor OhioEPA for risk evaluation.
H - Health Effects Assessment Summary Tables (HEAST)
I - Integrated Risk Information Service (IRIS)
N - National Center for Environmental Assessment (NCEA)
Sources: U.S. EPA, Integrated Risk Information System (IRIS) database accessed January 1996.
U.S. EPA Health Effects Assessment Tables (HEAST), Annual FY-1995 edition(Heast, 1995).
Note: Region IV default oral absorption factors were used when necessary and are as follows: VOCs - 0.80, SVOCs - 0.50, inorganics - 0.20.
(a) Adjusted oral toxicity values used for calculation of dermal risks.
Adjustment of an administered to an absorbed dose CSF: (Administered CSF)-1/(Oral Absorption Factor) = Absorbed Dose CSF
(b) Adjusted oral toxicity values used for calculation of dermal hazards.
Adjustment of an administered to an absorbed dose RfD: (Administered RfD) x (Oral Absorption Factor) = Absorbed Dost RfD
(c) Oral absorption factors from chemical-specific Toxicological Profiles, Agency for Toxic Substances and Disease Registry, U.S. Public Health Service.

The potential for adverse noncarcinogenic effects from chemical exposure is expressed in terms of the hazard quotient (HQ). The hazard quotient is the ratio of the estimated dose, or exposure, which a human receives to the estimated dose level believed to be safe, the reference dose (RfD).

The hazard quotient is calculated as follows:

$$HQ = DI/RfD \quad (1)$$

Where:

HQ	=	Hazard Quotient
DI	=	Daily Intake
RfD	=	Reference Dose

Once the hazard quotients for each chemical in each of the exposure pathways are determined, they are added together to calculate a total site non-cancer hazard index (HI). If the hazard index value is less than 1.0, it is believed the potential of non-carcinogenic injury is low. If the hazard index exceeds 1.0, potential of non-carcinogenic effects may exist.

The hazard quotients calculated for each of the chemicals of potential concern and excavation exposures considered in this streamlined risk evaluation are provided in Appendix A. These hazard quotients were then added together to calculate the total hazard index for the Site. The results of these calculations are summarized in Table 2-12.

2.5.6.2 Evaluation of Carcinogenic Risks

The increased incidence of cancer from exposure to a chemical is described in terms of the probability that an individual will develop cancer as a result of that exposure. It is assumed that even a single incident of exposure has a life-long effect on the probability of developing cancer. Cancer is a general term for a collection of different diseases, with varying degrees of survivability. This evaluation, however, does not specify the type of cancer (i.e., malignant or benign) that may occur, nor does it specify the target organ or location of cancer that may result.

The probability, or risk value, is calculated by multiplying the average daily intake (DI) by the chemical-specific cancer slope factor (CSF). Because the probability of the incidence of cancer is assumed to occur

TABLE 2-12
SUMMARY OF RISK AND HAZARD CALCULATIONS
HYPOTHETICAL FUTURE ADULT EXCAVATION WORKER

EXPOSURE TO CHEMICALS	WORKER (SHORT TERM)			
	Matrix	Route	Risk	Hazard
	Soil	Ingestion	9E-09	0.0005
		Dermal	1E-08	0.0008
		Inhalation	1E-08	0.0002
	Total		4E-08	0.0014

over a lifetime, even for a single incident of exposure, the exposure is averaged over 70 years (25,550 days) for carcinogenic effects.

This risk value is calculated by multiplying the average daily intake (DI) by the carcinogenic slope factor for the chemical:

$$Cancer\ Risk = DI \times CSF \quad (2)$$

Risk estimates are presented as cancer risk per unit of population. For example, a risk estimate of 1E-04 is equivalent to one occurrence of cancer per 10,000 individuals in a given population.

The risk estimates calculated for each of the chemicals of potential concern and exposures considered in this risk evaluation are provided in Appendix A. The results of these calculations and the total carcinogenic risk estimate for the site are summarized in Table 3.

2.5.6.3 Results

A total Site hazard index and risk estimate was calculated for the excavation worker. The total site noncancer hazard index was 0.001. The total Site cancer risk estimate for the excavation receptor was 4E-8.

The findings of the excavation exposure evaluation indicated that the carcinogenic risks associated with maximum concentrations of volatile organic chemicals detected in soil is less than the U.S. EPA risk range of 1E-06 to 1E-04 and the noncancer hazard is less than the hazard criterion of 1.

2.5.7 Summary of Risk Evaluation and Removal Action Goals for the Treatment of Impacted Soils

The streamlined risk evaluation for the GSS evaluated the potential significance of contact with volatile organic chemicals in soils on the property. Analytical soil data generated during the April 1996 Site investigation were used to select the chemicals of concern and maximum concentrations of those chemicals to quantitatively estimate exposures to people who may feasibly come into contact with the soil on Site.

Only one group of potentially exposed individuals could be identified as being likely receptors to come into contact with Site soils at GSS, namely, excavation workers who excavate utility corridors on the Site.

The methods used to estimate the intake of chemicals from soil on the GSS incorporated assumptions and variable values which are consistent with U.S. EPA and Ohio EPA guidance documents.

The estimated risks from direct contact (ingestion, dermal contact, and inhalation) with chemicals in the soil were of a very low order of magnitude for both carcinogenic and noncarcinogenic health effects.

Based upon the results of this streamlined risk evaluation which incorporated exposure assumptions for an excavation worker receptor, maximum concentrations of the volatile organic chemicals detected in GSS soil are not associated with an excess carcinogenic risk or adverse health effect. Therefore, Removal Action Goals for the treatment of impacted soils based on an excavation scenario were not derived. However, as described in the *Groundwater Flow and Contaminant Fate and Transport Modeling Report* (1996), to be protective of groundwater, soil contaminants with total VOCs concentrations above 5,000 μg/kg will, if removed, more quickly and permanently protect groundwater beneath the Site. Therefore, the Soil Treatment Goal for total VOCs in Site soils is 5,000 μg/kg.

3.0 IDENTIFICATION OF REMOVAL ACTION OBJECTIVES

3.1 STATUTORY LIMITS

No statutory limits have been identified.

3.2 DETERMINATION OF REMOVAL ACTION SCOPE

The scope of the Removal Action is defined by the Administrative Order, Section V.2(g). The scope is defined by the following orders:

1) *"By December 20, 1994, install and run a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield. Treat and discharge all extracted water as required by the Work Plan and this Order."*

2) *"In addition, implement action which is necessary to ensure that any water contaminated with any contamination (originating from the Site) that enters the Village of Granville municipal wellfield drinking water supply meets all risk-based and all applicable federal and state drinking water standards. Such action may include utilization of, modification to, and/or addition to the Village of Granville municipal wellfield drinking water supply system. (For example, such action may be, or include, wellhead treatment which meets the performance standards of this Order; or, may be, or include, the installation of an appropriate alternative water supply.) Such action shall be implemented at the Village of Granville municipal wellfield to the extent necessary both to reinstate fully the capacity of PW-1 prior to its reactivation and to the extent necessary to prevent any loss in the Village of Granville municipal wellfield drinking water supply capacity (i.e., the collective capacity of PW-1, PW-2, and PW-3) caused, in whole or in part, because of contamination (originating from the Site), or the threat thereof, entering the Village of Granville municipal wellfield water supply."*

3) *"Design, install, and operate a groundwater extraction and treatment system which shall halt the migration of groundwater contamination (originating from the Site) toward the Village of Granville municipal wellfield and shall treat all groundwater within the contamination plume*

originating from the Site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARS."

4) *"Treat the soils at the Site to levels which will assure protection of human health and the environment, to levels which will attain all risk-based standards and federal and state ARARs, and to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels. Respondents shall propose a schedule to develop soil treatment objectives, no further action levels, performance monitoring parameters, and a plan for treatment of the soils, in the draft Work Plan."*

3.3 DETERMINATION OF REMOVAL ACTION GOALS

As described in Section 2 of this document, the Removal Action Goals for the treatment of impacted soils that will meet the stated requirements have been developed by modeling the fate and transport of compounds detected in the subsurface soils at the Site, and characterizing the risk posed by the residual compounds in Site soils. The Remedial Action Goal for treatment of impacted soil is treatment of soil containing total VOCs that exceed 5,000 μg/kg.

3.4 DETERMINATION OF REMOVAL ACTION OBJECTIVES

The proposed removal action objectives are as follows:

- Reduce the mass of contaminants present in the subsurface soil by the application of an alternative that will address the soils which exceed approximately 5,000 μg/kg of the total VOCs.

- Maintain a groundwater contaminant and removal system such that impacted groundwater exceeding action levels does not migrate into the Village of Granville wellfield.

- Maintain a groundwater contaminant and removal system such that compounds present in the subsurface soil that remain following the removal action on the soil do not impact the groundwater, to the extent practicable; above groundwater no further action levels.

- Enhance the groundwater removal system to more effectively and efficiently remove contaminant mass from the groundwater.

3.5 DETERMINATION OF REMOVAL ACTION SCHEDULE

The proposed schedule for the removal action is presented on the following table[1].

Activity	Number of Calendar Days Following Completion of Previous Activity
1. Submit EE/CA	0
2. Meet with U.S. EPA	30
3. Submit Final EE/CA After Receipt of Comments	90
4. Receive Final Approval	30
5. Public Meeting	30
6. Respond to Public Comments	30
7. Notice to Proceed to Construction	
8. Commence Construction	
9. Commence Operation	
10. Removal Action Completion	

[1] Subject to weather, equipment availability, and other *force majeure* events.

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4.0 IDENTIFICATION AND ANALYSIS OF REMOVAL ACTION ALTERNATIVES

Previously, M&E had evaluated a wide range of technologies that might be effective in meeting the requirements of the AOC. This work has been summarized in the *Design Technical Memorandum* (1995). As a result, several technologies have been eliminated and five have been carried forward for consideration. These alternatives fall into two broad categories: no action and soil contaminant removal with groundwater treatment. For those alternatives with soil contaminant removal, the Removal Action Goals have been determined based on contaminant fate and transport modeling which has been described in Section 2. Below is a brief description of each alternative, followed by an analysis of these alternatives.

4.1 IDENTIFICATION OF ALTERNATIVES

4.1.1 Alternative 1 - No Action

The "No Action" alternative would involve taking no action on the impacted soil detected at the Site and allowing natural leaching and degradation of the compounds present. Additionally, the current groundwater pump and treat system would be maintained and operated at its present status for a period of three years, and at a lower maintenance level for at least 17 additional years.

This alternative does not provide overall protection of human health and the environment, does not comply with ARARs, does not provide long-term effectiveness or permanence, nor does it provide short-term effectiveness. This alternative is retained in this analysis only as a means to provide a baseline against which other alternatives are compared and to be consistent with applicable regulatory guidance.

4.1.2 Alternative 2 - Soil Removal by Excavation and Disposal

Alternative 2 consists of the excavation and off-site disposal of soil based on the contaminant fate and transport modeling described in Section 2.5. Soils impacted by total volatile organic compounds in concentrations in excess of 5,000 μg/kg would be removed by excavating and disposing these materials off-site. These soils are generally located beneath the area currently occupied by the warehouse building at depths of greater than six feet to the water table. The estimated volume of this material is

approximately 8,000 yd^3. To excavate the material, sheet piling would be installed to eliminate the need to remove additional material.

The current groundwater pump and treat system would be modified by the addition of a new extraction well, GSS-EW3, located near current monitoring well P-1 as described in the *Fate and Transport Modeling Report* (1996). This well would be screened to intercept the more highly impacted groundwater near the surface of the water table. This system would operate for approximately five years, after which time GSS-EW3 would extract at a maintenance pumping rate for a period of five years to capture leaching of residual soil contamination over that period of time.

The groundwater monitoring program is anticipated to be maintained at its current level and at a reduced level for a period of 10 years prior to closure.

4.1.3 Alternative 3 - *In-Situ* Mixing/Hot Gas Vaporization of Soil Areas

Alternative 3 consists of the removal of soil contaminants by soil mixing and hot gas vaporization. The soil area is the same as described in Alternative 2. Soils overlying this area would be treated incidentally by this method resulting in a total volume of 8,000 yd^3 of soil treated.

The groundwater pump and treat system would be modified and operated as described in Alternative 2. In addition, the groundwater monitoring program is expected to be the same as in Alternative 2.

4.1.4 Alternative 4 - Treatment of Soils by Pneumatic Fracturing and Soil Vapor Extraction

Alternative 4 would consist of the removal of the contaminants by the use of soil vapor extraction enhanced by pneumatic fracturing. The soil area is the same as previously described in Alternative 2. The soils overlying the area are expected to be remedied by induced airflow from the SVE system.

The groundwater pump and treat system would be modified and operated as described in Alternative 2. The groundwater monitoring program is expected to be as described in Alternative 2.

4.1.5 Alternative 5 - Treatment of Soils Via Thermally Enhanced Soil Vapor Extraction (Shell Process)

Alternative 5 would consist of the removal of contaminants by the application of an innovative technology that heats the soil with electrodes, draws a vacuum on the electrodes to recover and destroy the contaminants, while the formation desiccates, causing increased air permeability. The area is the same as described in Alternative 2.

The pump and treat system would be modified and operated as described in Alternative 2. The groundwater monitoring program would be expected to be maintained as described in Alternative 2.

4.2 ANALYSIS OF REMOVAL ACTION ALTERNATIVES

This section provides a comparative analysis of the Removal Action Alternatives in tabular form and a cost analysis, also in tabular form. Section 4.2.1 consists of a series of five tables that identify, evaluate the effectiveness and implementability, and estimates the cost of each alternative.

4.2.1 Comparative Analysis

The comparative analysis is provided in Tables 4-1 through 4-5. Each alternative is evaluated as to its anticipated effectiveness based on the following criteria:

1) Overall protection of human health and the environment;
2) Compliance with ARARs and other criteria, advisories, and standards;
3) Long-term effectiveness and permanence;
4) Reduction of toxicity, mobility, and volume through treatment; and
5) Short-term effectiveness.

Implementability is evaluated based on the following criteria:

1) Technical feasibility;
2) Administrative feasibility;
3) Availability of services and materials;

4) State acceptance; and

5) Community acceptance.

4.2.1.1 Alternative 1 - No Action

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

If no action for removal or treatment is taken on contaminants in the soils, natural leaching and degradation of the contaminants would ultimately lead to their disappearance from the site soils. Soil contaminants would continue to migrate into the groundwater beneath the site and be collected by the groundwater treatment system. Established cleanup levels would not be achieved, nor would there be compliance with AOC requirements.

Extraction and treatment of Site groundwater would be necessary at the current rate for at least 3 years and at a lower rate for approximately 17 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

No treatment measures would be taken to reduce soil contaminant concentrations. Natural leaching of the chemicals and degradation would bring contaminant levels in the soils below established cleanup levels over time. However, this alternative does not comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Moreover, the alternative does not comply with the AOC requirement for treating "...all groundwater within the contamination plume originating from the site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARs."

Long-Term Effectiveness and Permanence:

There would ultimately be no residual risk for the soils if the soil contaminants are left to naturally degrade and leach into the groundwater. Residual risk for the Site groundwater would continue over the long-term because the soil contaminants would continue to contribute to the Site groundwater contamination. Thus, in the long term, the no action alternative would not be effective or permanent.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

No treatment of soil contaminants is provided under the no-action alternative, but the natural processes of leaching and degradation would, over time, transfer soil contaminants into the groundwater. Because there would be a transfer of contaminants into another more mobile medium, there would be increases in toxicity, mobility, and volume for that medium.

Short-Term Effectiveness:

The absence of any remedial action for the soil under the no-action alternative indicates that no short-term impacts to the community or the environment will occur because there is no implementation. Contaminants leaching from the soil will ultimately increase the potential impacts from the groundwater.

IMPLEMENTABILITY

Technical Feasibility:

No technical feasibility considerations exist in the absence of any measures being taken to treat or remove the contaminants.

Administrative Feasibility:

Administrative difficulties are anticipated because no proactive measures would be taken to reduce contaminant levels below established cleanup levels, and AOC requirements to perform treatment will not be followed.

Availability of Services and Materials:

Availability of services and materials is not an issue for the no-action alternative, based on the absence of any protective measures taken to treat or remove the contaminants.

State Acceptance:

State acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established cleanup levels and AOC requirements will not be followed.

Community Acceptance:

Community acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established soil cleanup levels and AOC requirements will not be followed.

4.2.1.2 Alternative 2 - Soil Removal by Excavation and Disposal

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

Soil excavation and disposal of those soils that exceed 5,000 μg/kg total VOCs will provide a high degree of overall protection of human health and the environment. Soil excavation and disposal would reduce the quantity of soil contaminants migrating into the Site groundwater, permanently removing soil contaminants from the Site soil. Moreover, it will comply with ARARs by satisfying the AOC requirements and be protective of the community, site workers, and the environment during implementation through effective Site control measures.

With the continued extraction and treatment of the Site groundwater at a high flow rate (about 300 gpm) for an estimated 5-year period, the groundwater plume is expected to have receded to beneath the area of the Site. Maintenance pumping at a low flow rate (about 40 gpm) would be required to continue for an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

Soil excavation and disposal is a proven technology and would remove and dispose approximately 5,100 cubic yards of soils containing contaminants at levels above established soil cleanup levels. Soil excavation and disposal combined with continued extraction and treatment of the site groundwater complies with the AOC requirements that soils be treated ... "to levels which assure, to the maximum extent practicable, that no groundwater beneath the soils becomes contaminated above groundwater no further action levels."

Long-Term Effectiveness and Permanence:

Soil excavation and disposal will be effective in reducing the migration of soil contaminants into the site groundwater. Natural leaching and degradation of contaminants in the soils outside the area impacted above 5,000 μg/kg will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

Soil excavation and disposal would remove all soils containing volatile organic contaminants at concentrations above soil cleanup levels. Soil excavation and disposal would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils (by their removal).

Soil excavation and disposal from the site represents an irreversible process for the site, but transport and disposal at a regulated, permitted hazardous waste landfill overall reduces toxicity and mobility but not volume.

Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from soil removal and disposal would be minimized by the implementation of effective Site controls. Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used.

The implementation of this alternative is not expected to impose any measurable environmental impacts. The soil excavation and disposal alternative could be effectively implemented within 6 to 9 months of on-site activity. The treatment of residual soil contaminants outside the area impacted by total VOCs in excess of 5,000 μg/kg would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.

IMPLEMENTABILITY

Technical Feasibility:

Soil excavation and removal is a technically feasible but impractical option inasmuch as nonconventional construction techniques would be required for its implementation. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible.

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. But Site controls to prevent off-site dispersion of airborne contaminants would be needed.

Availability of Services and Materials:

Conventional construction equipment and adequate disposal sites, along with the personnel required to operate it, are readily available. There are no foreseen problems associated with obtaining the services, materials, equipment, and disposal sites necessary to implement this alternative.

State Acceptance:

State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. Truck traffic to and from the Site could be a community consideration.

4.2.1.3 Alternative 3 - *In-Situ* Mixing/Hot Gas Vaporization of Soil Areas

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

The soil mixing alternative will provide a high degree of overall protection of human health and the environment. *In-situ* mixing/vaporization treatment of soils exceeding 5,000 μg/kg should effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove soil contaminants from the Site soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation through the implementation of effective Site control measures.

Continued extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

In-situ mixing/vaporization is a proven technology and is expected to reduce contaminant concentrations below established soil cleanup levels of 5,000 μg/kg. This treatment technology and the continued extraction and treatment of Site groundwater are expected to comply with the AOC requirement that soils

be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Long-Term Effectiveness and Permanence:

The *in-situ* mixing/vaporization technology is expected to be effective in eliminating the migration of soil contaminants into the Site groundwater. Natural leaching and degradation of remaining contaminants in the soils will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

The *in-situ* mixing/vaporization technology is expected remove at least 90 percent of the volatile organic contaminants in soils that are treated. *In-situ* mixing/vaporization will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils and satisfy statutory preferences for treatment. *In-situ* mixing/vaporization is an irreversible treatment process. Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from the *in-situ* treatment of the Site soils with this alternative would not be measurable. The design of the *in-situ* mixing/vaporization treatment process will incorporate collection and treatment of the off-gases to control airborne organic compounds. Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. The implementation of this alternative is not expected to impose any measurable environmental impacts.

The estimated time to implement treatment of the soils and reduce soil concentrations below the established soil cleanup levels is less than three months. The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.

IMPLEMENTABILITY

Technical Feasibility:

The *in-situ* soil mixing/hot gas vaporization technology is considered a technically feasible and reliable remedial option for the Site soil contaminants. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. The large cranes and mixing equipment required to implement this technology may have difficulty in accessing and moving around the project Site (e.g., overhead utilities, sloped topography, and the small size of the Site).

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. The off-gas treatment for the *in-situ* mixing technology may require an air permit-to-install or an exemption.

Availability of Services and Materials:

The *in-situ* mixing/vaporization technology, along with personnel required for implementation, is readily available. The services and materials necessary to implement this alternative are readily available.

State Acceptance:

State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. The large cranes and mixing equipment needed to treat the soils with the *in-situ* mixing technology could be a community consideration.

4.2.1.4 Alternative 4 - Treatment of Soils by Pneumatic Fracturing and Soil Vapor Extraction

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

Successful pneumatic fracturing and SVE treatment of impacted soils with total VOC concentrations in excess of 5,000 μg/kg would provide a high degree of overall protection of human health and the environment. Pneumatic fracturing and SVE treatment would effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove contaminants from the soil (within an estimated 5-year time period); comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation.

Continued extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

SVE treatment is a proven technology and will reduce contaminant concentrations below established cleanup levels. Successful application of pneumatic fracturing and SVE treatment and continued extraction and treatment of Site groundwater are expected to comply with AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Long-Term Effectiveness and Permanence:

Successful application of pneumatic fracturing and the SVE treatment would be effective in eliminating the migration of soil contaminants into the groundwater (within an estimated 5-year time period). Natural leaching and degradation of contaminants in the soils outside the area underlain by soils with total VOC concentrations greater that 5,000 μg/kg will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

Successful pneumatic fracturing and SVE treatment would be expected to remove 90% of the volatile organic contaminants in the soils that are treated. Successful pneumatic fracturing and SVE treatment would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment. SVE is an irreversible treatment process.

Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from the operation of the SVE treatment system would not be measurable. If necessary, controlled air emissions from the SVE treatment system could be incorporated into the system design. Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used.

The implementation of this alternative is not expected to impose any measurable environmental impacts. The estimated time to reduce soil contaminant concentrations in the area below the established cleanup levels with successful pneumatic fracturing and SVE treatment is less than 5 years. The treatment of residual soil contaminants outside the area would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 5 years.

IMPLEMENTABILITY

Technical Feasibility:

The SVE technology, with enhancements to the technology using pneumatic fracturing to improve soil permeability, should be technically feasible for the Site soil contaminants. A final judgement on technical feasibility will be made after a pilot application of the technology has been performed at the Site. All

proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible.

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. Dependent upon the concentration of volatile organic compounds in the vapor extraction system off-gas, an air permit-to-install or an exemption may be necessary for the SVE system.

Availability of Services and Materials:

The SVE and pneumatic fracturing technologies, along with the personnel required to implement them, are readily available. The services and materials necessary to implement this alternative are readily available.

State Acceptance:

State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

4.2.1.5 Alternative 5 - Treatment of Soils Via Thermally-Enhanced Soil Vapor Extraction

EFFECTIVENESS

Overall Protection of Human Health and the Environment:

Thermally-enhanced soil vapor extraction of soils with total VOCs greater than 5,000 μg/kg would provide a high degree of overall protection of human health and the environment. Thermally-enhanced

soil vapor extraction would effectively reduce the migration of soil contaminants into the site groundwater; permanently remove contaminants from the soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation.

Enhanced extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.

Compliance with ARARs and Other Criteria, Advisories, and Guidance:

Thermally-enhanced soil vapor extraction is an innovative technology that has been developed for the treatment of VOCs in clay soils and is expected to reduce contaminant concentrations below established cleanup levels. Successful application of the thermally-enhanced soil vapor extraction treatment process and continued extraction and treatment of Site groundwater are expected to comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels."

Long-Term Effectiveness and Permanence:

Successful application of the thermally-enhanced soil vapor extraction treatment process is expected to be effective in eliminating the migration of soil contaminants into the groundwater. Natural leaching and degradation of contaminants not removed will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system.

Reduction of Toxicity, Mobility, and Volume Through Treatment:

Successful treatment by thermally-enhanced soil vapor extraction would almost quantitatively remove the volatile organic contaminants in the soils that are treated. Successful treatment by thermally-enhanced soil vapor extraction will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment.

Thermally-enhanced soil vapor extraction is an irreversible treatment process. Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This would result in the elimination of soil contaminant toxicity, mobility, and volume through treatment.

Short-Term Effectiveness:

Risk to the nearby residents resulting from the operation of the thermally-enhanced soil vapor extraction system would not be measurable. All emissions from the thermally-enhanced soil vapor extraction system will be collected and treated in an on-site system to destroy any residual contaminants not destroyed *in-situ*. Impacts to site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used.

The implementation of this alternative is not expected to impose any measurable environmental impacts. The estimated time to reduce soil contaminant concentrations to below the established soil cleanup levels with thermally-enhanced soil vapor extraction, including site preparation is 5 months. The treatment of residual soil contaminants would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.

IMPLEMENTABILITY

Technical Feasibility:

The thermally-enhanced soil vapor extraction process should be a technically feasible and reliable remedial option for the Site soil contaminants. The first full-scale application of this technology is currently being conducted at a project site in Indiana. Further judgement on technical feasibility will be made once the results of the first full-scale application of this technology are available. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible.

Administrative Feasibility:

The implementation of this alternative is considered administratively feasible. An air permit-to-install may be required for the discharge stack of the emissions control system of the thermally-enhanced soil vapor extraction system.

Availability of Services and Materials:

The equipment and personnel required to implement the thermally-enhanced soil vapor extraction system should be available within a reasonable time frame. If the thermally-enhanced soil vapor extraction process is demonstrated to be successful during the first full-scale application, problems associated with obtaining the services and materials necessary to implement this alternative are not anticipated.

State Acceptance:

State acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

Community Acceptance:

Community acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.

4.2.2 Cost Analysis

Cost analysis is provided in Table 4-6. The estimated costs are separated into the direct capital costs, indirect capital costs, annual O&M costs, and a net present worth of the long-term O&M costs. For each of these, estimates are made of the costs anticipated for the soil actions and the groundwater actions.

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TABLE 4-1
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS Site SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA		
	EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
1. **No Action on Soils** Description No-action on Soils • Existing Extraction System	*Overall Protection of Human Health and the Environment*: • No-action for removal or treatment would be taken on contaminants in the soils, but natural leaching and degradation of the contaminants would ultimately lead to their disappearance from the Site soils. • Soil contaminants would continue to migrate into the groundwater beneath the Site and be collected by the groundwater treatment system. Established cleanup levels would not be achieved, nor would there be compliance with AOC requirements. • Extraction and treatment of Site groundwater at the current rate for 3 years and at a lower rate for 17 years. *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • No treatment measures would be taken to reduce soil contaminant concentrations; natural leaching and degradation will bring contaminant levels in the soils below established cleanup levels. • Does not comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." • Does not comply with the AOC requirement for treating "...all groundwater within the contamination plume originating from the Site to no further action levels which assure protection of human health and the environment and attain all risk-based standards and federal and state ARARs." *Long-Term Effectiveness and Permanence*: • There would ultimately be no residual risk for the soils if the soil contaminants are left to naturally degrade and leach into the groundwater. Residual risk for the Site groundwater would continue over the long-term because the soil contaminants would continue to contribute to the Site groundwater contamination. Thus, in the long term, the no-action alternative would not be effective or permanent. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • No treatment of soil contaminants is provided under the no-action alternative, but the natural processes of leaching and degradation will, over time, transfer soil contaminants into the groundwater. • Because there would be a transfer of contaminants into another, more mobile medium, there would be increases in toxicity, mobility, and volume. *Short-Term Effectiveness*: • The absence of any remedial actions for the soil under the no-action alternative indicates that no short-term impacts to the community or the environment will occur because there is no implementation. Contaminants leaching from the soil will ultimately increase the potential impacts from the groundwater.	*Technical Feasibility*: • No technical feasibility considerations exist in the absence of any measures being taken to treat or remove the contaminants *Administrative Feasibility*: • Administrative difficulties are anticipated because no proactive measures will be taken to reduce contaminant levels below established cleanup levels, and AOC requirements to perform treatment will not be followed. *Availability of Services and Materials*: • Availability of services and materials is not an issue for the no-action alternative, based on the absence of any protective measures taken to treat or remove the contaminants. *State Acceptance*: • State acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established cleanup levels and AOC requirements will not be followed. *Community Acceptance*: • Community acceptance would probably not be possible to obtain because no actions will be taken to reduce contaminant levels to below established soil cleanup levels and AOC requirements will not be followed.	Direct Capital Cost: Soil - None Groundwater - None Indirect Capital Cost: Soil - None Groundwater - None Annual O&M Cost: Soil - None Groundwater - $70,000 9 years, $31,000 11 years O&M Net Present Worth Cost: Groundwater - $638,384 Total Net Present Worth: $2,400,267

TABLE 4-2
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS Site SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA		
	EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
2. **Remove Soil with Total VOCs >5,000 µg/kg by Excavation and Off-Site Disposal** Description • Remove soils with total VOCs >5,000 µg/kg • Enhanced groundwater removal with the addition of GSS-EW3[1] • Low rate pumping of 50 gpm for 5 years • Groundwater monitoring at current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • Soil excavation and disposal of soils exceeding 5,000 µg/kg total VOCs will provide a high degree of overall protection of human health and the environment. Soil excavation and disposal would reduce the quantity of soil contaminants migrating into the Site groundwater; permanently remove soil contaminants from the Site soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation through the implementation of effective Site control measures. • Enhanced extraction and treatment of the Site groundwater at a high flow rate (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years[1]. *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • Soil excavation and disposal is a proven technology and would remove and dispose approximately 8,000 cubic yards of soils containing contaminants at levels above 5,000 µg/kg total VOCs. • Soil excavation and disposal combined with continued extraction and treatment of the Site groundwater complies with the AOC requirements that soils be treated ... "to levels which assure, to the maximum extent practicable, that no groundwater beneath the soils becomes contaminated above groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • Soil excavation and disposal of soils exceeding 5,000 µ/kg total VOCs will be effective in reducing the migration of soil contaminants into the Site groundwater. • Natural leaching and degradation of contaminants in the soils outside of this area will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • Soil excavation and disposal would remove all soils containing volatile organic contaminants at concentrations above 5,000 µg/kg. • Soil excavation and disposal would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils (by their removal). • Soil excavation and disposal from the Site represents an irreversible process for the Site, but transport and disposal at a regulated, permitted hazardous waste landfill overall reduces toxicity and mobility but not volume. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. *Short-Term Effectiveness*: • Risk to the nearby residents resulting from the soil removal and disposal would be minimized by the implementation of effective Site controls. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The soil excavation and disposal alternative could be effectively implemented within 6 to 9 months of on-Site activity. • The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • Soil excavation and removal is a technically feasible but impractical, inasmuch as nonconventional construction techniques would be utilized for its implementation. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. But Site controls to prevent off-Site dispersion of airborne contaminants would be needed. *Availability of Services and Materials*: • Conventional construction equipment and adequate disposal Sites, along with the personnel required to operate it, are readily available. • There are no foreseen problems associated with obtaining the services, materials, equipment, and disposal Sites necessary to implement this alternative. *State Acceptance*: • State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. Truck traffic to and from the Site could be a community consideration.	Direct Capital Cost: Soil - $4,529,735 Groundwater - $75,900 Indirect Capital Cost: Soil - $450,000 Groundwater - $13,543 Annual O&M Cost: Soil - None Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,487 Total Net Present Worth: $6,464,898

[1] Based on groundwater modeling results.

TABLE 4-3
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS Site SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA		
	EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
3. **Treat Soils with Total VOCs >5,000 µg/kg by *In-Situ* Mixing/Hot Gas Vaporization** Description • Treat soils with total VOCs >5,000 µg/kg with *in-situ* mixing/hot gas vaporization • Enhanced groundwater removal with the addition of GSS-EW3[1] • High rate pumping of 300 gpm for 5 years • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • The soil mixing alternative will provide a high degree of overall protection of human health and the environment. *In-situ* mixing/vaporization treatment of soils exceeding 5,000 µg/kg should effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove soil contaminants from the Site soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation through the implementation of effective Site control measures. • Continued extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5 year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years. ***Compliance with ARARs and Other Criteria, Advisories, and Guidance***: • *In-situ* mixing/vaporization is a proven technology and is expected to reduce contaminant concentrations below established soil cleanup levels of 5,000 µg/kg. • This treatment technology and the continued extraction and treatment of Site groundwater are expected to comply with the AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • The *in-situ* mixing/vaporization technology is expected to be effective in eliminating the migration of soil contaminants into the Site groundwater. • Natural leaching and degradation of remaining contaminants in the soils will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. ***Reduction of Toxicity, Mobility, and Volume Through Treatment***: • The *in-situ* mixing/vaporization technology is expected to remove at least 90 percent of the volatile organic contaminants in soils that are treated. • *In-situ* mixing/vaporization will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the Site soils and satisfy statutory preferences for treatment. • *In-situ* mixing/vaporization is an irreversible treatment process. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. ***Short-Term Effectiveness***: • Risk to the nearby residents resulting from the *in-situ* treatment of the Site soils with this alternative would not be measurable. The design of the *in-situ* mixing/vaporization treatment process will incorporate collection and treatment of the off-gases to control airborne organic compounds. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The estimated time to implement treatment of the soils and reduce soil concentrations below the established soil cleanup levels is less than three months. • The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • The *in-situ* soil mixing/hot gas vaporization technology is considered a technically feasible and reliable remedial option for the Site soil contaminants. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. • The large cranes and mixing equipment required to implement this technology may have difficulty in accessing and moving around the project Site (e.g., overhead utilities, sloped topography, and the small size of the Site. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. The off-gas treatment for the *in-situ* mixing technology will require an air permit-to-install or an exemption. *Availability of Services and Materials*: • The *in-situ* mixing/vaporization technology, along with personnel required for implementation, is readily available. • The services and materials necessary to implement this alternative are readily available. *State Acceptance*: • State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. • The large cranes and mixing equipment needed to treat the soils with the *in-situ* mixing technology could be a community consideration.	Direct Capital Cost: Soil - $1,454,478 Groundwater - $75,900 Indirect Capital Cost: Soil - $167,771 Groundwater - $13,543 Annual O&M Cost: Soil - None Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,497 Total Net Present Worth: $3,097,512

[1] Based on groundwater modeling results

TABLE 4-4
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS Site SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA: EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
4. **Treat Soils with Total VOCs >5,000 µg/kg by Pneumatic Fracturing and Soil Vapor Extraction** **Description** • Treat soils with total VOCs >5,000 µg/kg with pneumatic fracturing and SVE • Enhanced groundwater extraction with the installation of GSS-EW3[1] • High rate pumping of 300 gpm for 5 years • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at the current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • Successful pneumatic fracturing and SVE treatment of soils with total VOCs >5,000 µg/kg would provide a high degree of overall protection of human health and the environment. Pneumatic fracturing and SVE treatment could effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove contaminants from the soil (within an estimated 5-year time period); comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation. • Enhanced extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years[1]. ***Compliance with ARARs and Other Criteria, Advisories, and Guidance***: • SVE treatment is a proven technology and should reduce contaminant concentrations below established cleanup levels. • Successful application of pneumatic fracturing and SVE treatment and continued extraction and treatment of Site groundwater are expected to comply with AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." ***Long-Term Effectiveness and Permanence***: • Successful application of pneumatic fracturing and the SVE treatment would be effective in eliminating the migration of soil contaminants into the groundwater (within an estimated 5-year time period). • Natural leaching and degradation of contaminants in the soils will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. ***Reduction of Toxicity, Mobility, and Volume Through Treatment***: • Successful pneumatic fracturing and SVE treatment would be expected to remove 90% of the volatile organic contaminants in the soils that are treated. • Successful pneumatic fracturing and SVE treatment would reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment. • SVE is an irreversible treatment process. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. ***Short-Term Effectiveness***: • Risk to the nearby residents resulting from the operation of the SVE treatment system would not be measurable. If necessary, controlled air emissions from the SVE treatment system could be incorporated into the system design. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The estimated time to reduce soil contaminant concentrations below the established cleanup levels with successful pneumatic fracturing and SVE treatment is less than 5 years. • The treatment of residual soil contaminants not removed would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • The SVE technology, with enhancements to the technology using pneumatic fracturing to improve soil permeability, should be technically feasible for the Site soil contaminants. A final judgement on technical feasibility will be made after a pilot-application of the technology has been performed at the Site. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. Dependent upon the concentration of volatile organic compounds in the vapor extraction system off-gas, an air permit-to-install or an exemption may be necessary for the SVE system. *Availability of Services and Materials*: • The SVE and pneumatic fracturing technologies, along with the personnel required to implement them, are readily available. • The services and materials necessary to implement this alternative are readily available. *State Acceptance*: • State acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative is considered likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.	Direct Capital Cost: Soil - $306,728 Groundwater - $75,900 Indirect Capital Cost: Soil - $119,062 Groundwater - $13,543 Annual O&M Cost: Soil - $128,340 Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,487 Total Net Present Worth:[1] $2,456,598

[1] Based on groundwater modeling results

TABLE 4-5
REMEDIAL ALTERNATIVE EVALUATION SUMMARY
GRANVILLE SOLVENTS Site SOURCE AREA
GRANVILLE, OHIO

ALTERNATIVE	NCP EVALUATION CRITERIA		
	EFFECTIVENESS	IMPLEMENTABILITY	ESTIMATED COSTS
5 **Treat Soils with Total VOCs >5,000 µg/kg by *In-Situ* Thermal Treatment (Shell Process)** Description • Treat soils with total VOCs >5,000 µg/kg by *in-situ* thermal treatment • Enhanced groundwater extraction with the installation of GSS-EW3[1] • High rate pumping of 300 gpm for 5 years • Low rate pumping of 40 gpm for 5 years • Groundwater monitoring at the current level for 5 years, reduced level for 10 years	*Overall Protection of Human Health and the Environment*: • Thermally-enhanced soil vapor extraction of soils with total VOCs >5,000 µg/kg would provide a high degree of overall protection of human health and the environment. Thermally-enhanced soil vapor extraction would effectively reduce the migration of soil contaminants into the Site groundwater; permanently remove contaminants from the soil; comply with ARARs by satisfying the AOC requirements; and be protective of the community, Site workers, and the environment during implementation. • Enhanced extraction and treatment of the Site groundwater at a high flow (about 300 gpm) would be required over an estimated 5-year period and maintenance pumping at a low flow rate (about 40 gpm) would continue an additional 5 years.[1] *Compliance with ARARs and Other Criteria, Advisories, and Guidance*: • Thermally-enhanced soil vapor extraction is an innovative technology that has been developed for the treatment of VOCs in clay soils and is expected to reduce contaminant concentrations below established cleanup levels. • Successful application of the thermally-enhanced soil vapor extraction treatment process and continued extraction and treatment of Site groundwater are expected to comply with AOC requirement that soils be treated "...to levels which will assure, to the maximum extent practicable, that no groundwater beneath the soils will become contaminated above the groundwater no further action levels." *Long-Term Effectiveness and Permanence*: • Successful application of the thermally-enhanced soil vapor extraction treatment process is expected to be effective in eliminating the migration of soil contaminants into the groundwater. • Natural leaching and degradation of contaminants not removed will reduce soil contaminant levels. These contaminants will be removed through continued operation of the groundwater treatment system. *Reduction of Toxicity, Mobility, and Volume Through Treatment*: • Successful treatment by thermally-enhanced soil vapor extraction would almost quantitatively remove the volatile organic contaminants in the soils that are treated. • Successful treatment by thermally-enhanced soil vapor extraction will reduce the toxicity, mobility, and volume of the volatile organic contaminants in the soils and satisfy statutory preferences for treatment. • Thermally-enhanced soil vapor extraction is an irreversible treatment process. • Residual soil contaminants would degrade or leach into the groundwater and be captured by the groundwater treatment system. This will result in the elimination of soil contaminant toxicity, mobility, and volume through treatment. *Short-Term Effectiveness*: • Risk to the nearby residents resulting from the operation of the thermally-enhanced soil vapor extraction system would not be measurable. All emissions from the thermally-enhanced soil vapor extraction system will be collected and treated in an on-Site system to destroy any residual contaminants not destroyed *in-situ*. • Impacts to Site workers during implementation of this remedial action would be minimized by ensuring that proper personal protective equipment is provided and used. • The implementation of this alternative is not expected to impose any measurable environmental impacts. • The estimated time to reduce soil contaminant concentrations to below the established soil cleanup levels with thermally-enhanced soil vapor extraction, including Site preparation is 5 months. • The treatment of residual soil contaminants would occur through continued operation of the groundwater treatment system. The estimated time to reduce residual soil contaminant concentrations to levels which are protective of groundwater is 10 years.	*Technical Feasibility*: • The thermally-enhanced soil vapor extraction process should be a technically feasible and reliable remedial option for the Site soil contaminants. The first full-scale application of this technology is currently being conducted at a project Site in Indiana. Further judgement on technical feasibility will be made once the results of the first full-scale application of this technology are available. All proposed groundwater extraction and treatment technologies have been demonstrated as technically feasible. *Administrative Feasibility*: • The implementation of this alternative is considered administratively feasible. An air permit-to-install may be required for the discharge stack of the emissions control system of the thermally-enhanced soil vapor extraction system. *Availability of Services and Materials*: • The equipment and personnel required to implement the thermally-enhanced soil vapor extraction system should be available within a reasonable time frame. • If the thermally-enhanced soil vapor extraction process is demonstrated to be successful during the first full-scale application, problems associated with obtaining the services and materials necessary to implement this alternative are not anticipated. *State Acceptance*: • State acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment. *Community Acceptance*: • Community acceptance of this alternative would be likely based on its anticipated effectiveness, compliance with ARARs, and anticipated overall protection of human health and the environment.	Direct Capital Cost Soil - $1,500,000 to $2,000,000 Groundwater - $75,900 Indirect Capital Cost: Soil - $140,000 to $180,000 Groundwater - $13,543 Annual O&M Cost: Soil - None Groundwater - $70,000 (years 0-5) $31,000 (years 6-10) O&M Net Present Worth Cost: • Enhanced groundwater pumping - $497,666 • Groundwater monitoring - $977,497 Total Net Present Worth: $3,115,1634 to $3,655,163

[1] Based on groundwater modeling results

TABLE 4-6
COMPARISON OF COSTS FOR ALTERNATIVES 1 THROUGH 5

Alternative Number	Soil Remedy	Soil Remedy Estimated Direct Capital Cost	Soil Remedy Estimated Indirect Capital Cost	Soil Remedy Estimated Annual O&M Cost	Soil Remedy Estimated Net Present Worth Cost	Groundwater Remedy	Groundwater Remedy Estimated Direct Capital Cost	Groundwater Remedy Estimated Indirect Capital Cost	Groundwater Remedy Estimated Annual O&M Cost	Groundwater Remedy Estimated Net Present Worth Cost	Groundwater Monitoring Scenario	Estimated Net Present Worth Cost of Groundwater Monitoring	TOTAL NET PRESENT WORTH COST
1	No Action	None	None	None	None	Existing system	None	None	$70,000 (years 0-3); $31,000 (years 4-20)	$638,394	Monitor for 16 years at current level and 15 years at reduced level	$1,761,833	$2,400,267
2	Soil Removal by Excavation and Disposal	$4,529,735	$460,000	None	$4,989,735	Install EW-3 as new extraction well; ~~use EW-1 as injection well~~. Operate for 5 years then maintenance pump from EW-3 for 5 more years.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$6,464,898
3	*In-Situ* Mixing/Hot Gas Vaporization of Soil Areas	$1,454,578	$167,771	None	$1,622,349	Install EW-3 as new extraction well; ~~use EW-1 as injection well~~. Operate for 5 years then maintenance pump from EW-3 for 5 more years.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$3,097,512
4	Treatment of Soils Via Pneumatic Fracturing and Soil Vapor Extraction	$306,728	$118,062	$128,340	$981,435 (based on 5 years of O&M costs)	Install EW-3 as new extraction well; ~~use EW-1 as injection well~~. Operate for 5 years then maintenance pump from EW-3 for 5 more years.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$2,456,598
5	Treatment of Soils Via Thermally-Enhanced Soil Vapor Extraction (Shell Process)	$1,500,000 to $2,000,000	$140,000 to $180,000	None	$1,640,000 to $2,180,000	Install EW-3 as new extraction well; ~~use EW-1 as injection well~~. Operate for 5 years then maintenance pump from EW-3 for 5 more years.	$75,900	$13,543	$70,000 (years 0-5) $31,000 (years 6-10)	$497,666	Monitor for 5 years at current level and 10 years at reduced level.	$977,497	$3,115,163 to $3,655,163

5.0 RECOMMENDED REMOVAL ACTION ALTERNATIVE

Based on the comparative analyses and cost analyses provided above, the recommended Removal Action for the Site soils is Alternative 4, Table 5-1. This alternative consists of two parts. Part 1 includes the installation of an additional groundwater extraction well that will more efficiently remove contaminant mass from the water table and as it leaches from the impacted site soils.

Part 2 of this action is to implement a soil vapor extraction system enhanced by pneumatically fracturing the soil (Figure 17). This system will consist of soil vapor extraction wells placed in the areas and depths at which the soil contains VOCs above 5,000 μg/kg.

TABLE 5-1
RECOMMENDED ALTERNATIVE

Pneumatic Fracturing and Soil Vapor Extraction
• Enhance groundwater extraction system.
• Pneumatically fracture soil and use soil vapor extraction over area with total VOCs concentrations that exceed 5,000 μg/kg.

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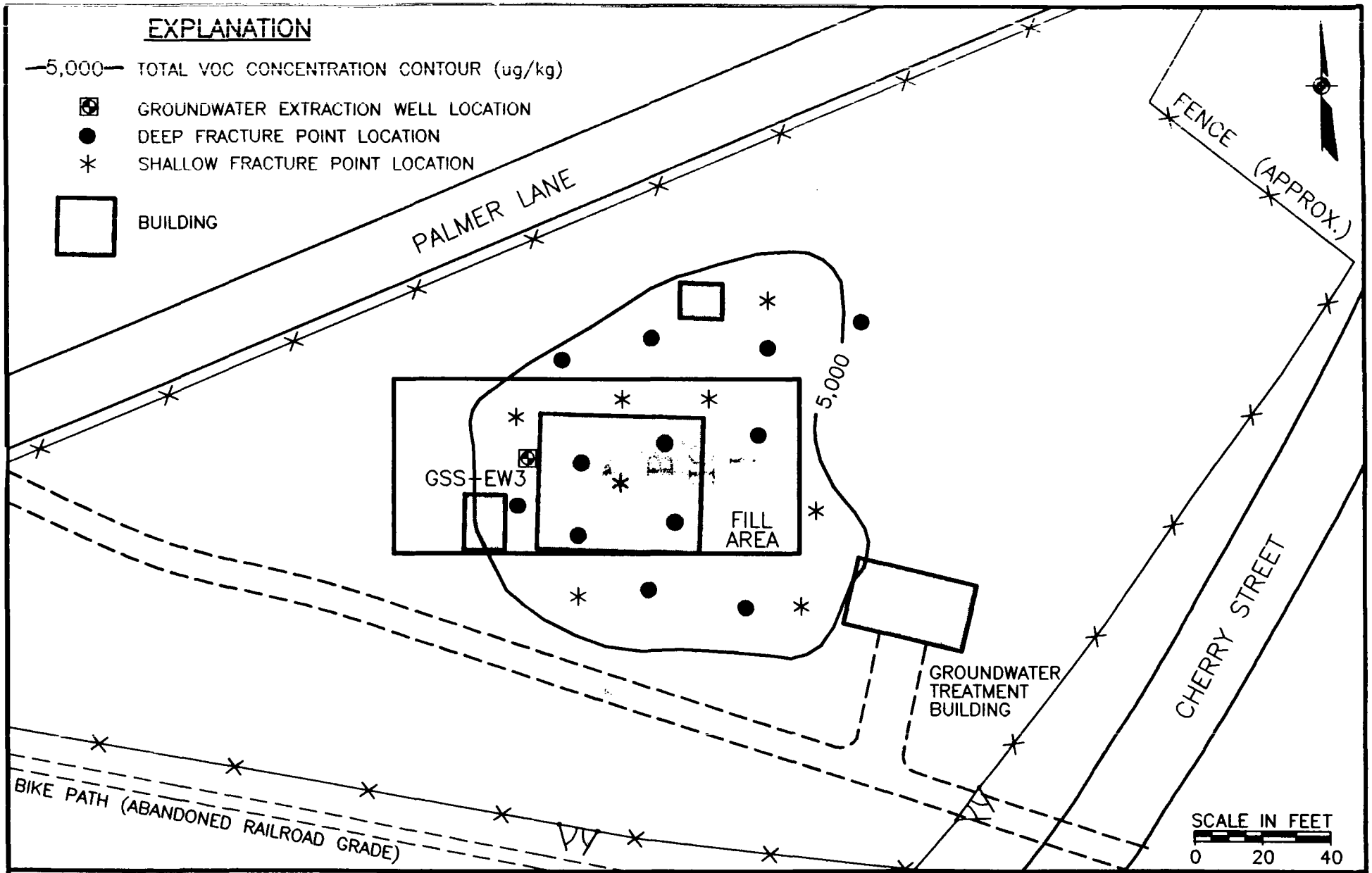

Metcalf & Eddy

GRANVILLE SOLVENTS SITE

ENGINEERING EVALUATION COST ANALYSIS PRELIMINARY SVE WELL AND GROUNDWATER EXTRACTION WELL LOCATIONS 1996

GRANVILLE, OHIO

Project Number	
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File Name	Figure
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